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ABSTRACT

Intended for school district personnel, the series of 11 articles by professionals in the field is noted to be helpful in designing and developing programs and services for gifted and talented students. Entries are included with the following titles and authors: "Identifying Key Features in Programs for the Gifted" (J. Renzulli); "How To Design, Develop, and Implement a Program for the Gifted and Talented in a Local School District" (W. Vassar); "Identification of the Gifted and Talented" (Renzulli); "In-Service Training Program Model for Professional Personnel in the Education of the Gifted and Talented"; "Issues in Evaluation and Accountability in Special Programs for Gifted and Talented Children" (M. Bach); "Key Features--A Practical Model for Program Evaluation" (Renzulli, et al.); "A State Plan for the Education of the Gifted and Talented"; "Connecticut's Comprehensive Model for the Education of the Gifted and Talented" (Vassar); "Descriptions of Some Program Approaches in Connecticut"; "Policies, Procedures, and Guidelines for Gifted and Talented Programs" (an outline); and "The Federal Role in Education of the Gifted and Talented" (J. Williams). Also provided are bibliographies on the gifted and talented, and creativity (by M. Howard) and a list of potential resources for information concerning the gifted and talented. (SBH)

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CONN-CEPT

CONNECTICUT'S PROGRAMMING FOR THE GIFTED AND TALENTED

A COLLECTION OF MATERIALS
FOR PROGRAM DEVELOPMENT

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FOREWORD

A large number of Connecticut school districts have come to recognize the importance of providing qualitatively different and innovative programs for gifted and talented children and youth. We are confident that the series of articles presented in this booklet, prepared by professionals in the field, will be helpful to school district personnel in designing and developing programs and services for gifted and talented students.

Robert I. Margolin, Chief
Bureau of Pupil Personnel and
Special Educational Services
Connecticut State Department of Education

INTRODUCTION

One of the functions of the State Department of Education is to provide local school district personnel with information and ideas that will assist them in the development of programs to meet the needs of children and youth. The dissemination of timely materials is intended to facilitate communication within the profession and to keep instructional, ancillary, and administrative personnel in contact with a rapidly expanding body of professional literature in the education of the gifted and talented.

The State Plan for the Gifted and Talented (1975-80) states that the Bureau of Pupil Personnel and Special Educational Services will prepare and distribute various guides, forms, and resource materials on the gifted and talented to local school districts. This source book is one attempt to meet the dissemination objectives of the State Plan.

The purpose of this source book is to provide the reader with ideas and guidelines for designing and developing programs and services for the gifted and talented in the local school district. We have attempted to choose materials that are suggested solutions to problems common to educational programming for the gifted and talented. The content is avowedly selective and focuses on topics that are of practical value to the reader. Descriptions of sample programs are intended to generate interest in visitation to some of our programs. Legislative, bibliographies, in-service and identification information is included for purposes of reference. No attempt has been made to duplicate the textbooks or excellent collection of readings that exist in the area.

The Bureau welcomes feedback from the field to those responsible for the publication. If this is done, the readers would serve to strengthen the future development and dissemination of materials in the area of the education of the gifted and talented.

– W.G.V., Hartford, Conn., August, 1976

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IDENTIFYING KEY FEATURES IN PROGRAMS FOR THE GIFTED

By Joseph S. Renzulli

Reprinted from Exceptional Children
Volume 35 Number 3 November 1968

Abstract: A study was undertaken to determine which features and characteristics of programs for the gifted are considered by authorities in the field to be the most necessary and sufficient for comprehensive programing. The seven features that were considered to be relatively more essential than others have been designated as key features of differential programs for the gifted. Discussion includes a description of the important dimensions of these key features.

In recent years renewed attention and effort have been directed toward the development of special programs for gifted and talented students. Evidence of heightened interest in this area is found in the rapidly increasing number of states which have taken legislative action dealing with special provisions for the gifted. In addition to increased support at the state level, a number of communities have developed programs through the use of resources available locally and available under various titles of the Elementary and Secondary Education Act. In view of the renewed interest in this area, it may be useful to call attention to those aspects of differential education fot the gifted which are considered to be the keystones of a quality program. Concentration upon a relatively limited number of indispensable program characteristics provides the complicated task of program development with structure and focus, and such an approach may be helpful in avoiding some of the hastily contrived adaptations that characterized the post-Sputnik era – adaptations which, in many cases, suffered an equally hasty demise.

The study reported here was undertaken to identify characteristics considered to be the most necessary for a successful program of differential education for the gifted. The purpose of the study was to isolate through systematic procedures a basic core of key features that could be used for program development and evaluation. The concept of key features represents an essential part of the rationale upon which the study was based. Reflections upon the entire span of characteristics which any educational program might possibly include, from the quality of the classroom teacher to the adequacy of the supplies and materials that a teacher has at her disposal, leads to the conclusion that certain program features and characteristics are extremely more consequential than others. With respect to the whole array of practices and provisions that posses potential, although in varying degrees, to further the objectives of differential education for the gifted, the concept of key features holds that concentration on a minimal number of highly significant features will facilitate both program development and evaluation. This concept also holds that if the more essential features of a program are found to be present and operating excellently, then the probability of less critical features being similarly present is high.

Procedure

The first step in carrying out the study consisted of searching the literature in order to identify the principal aspects of the problem and to locate relevant information and ideas that might prove useful in developing a comprehensive list of features and processes of programs for the gifted. This initial step included a nationwide survey aimed at locating lists of criteria used at state and local levels to evaluate special programs for the gifted.

The second step involved the selection of a panel of 21 expert judges. A larger group of persons who had made substantial contributions to the field of education for the gifted was identified according to a number of specified criteria; then this group was asked to nominate, from among themselves, those persons whom they considered to be the most qualified for judging the adequacy of educational experiences for superior and talented students.

The third procedure consisted of developing a relatively comprehensive list of general features and processes which represented various identifiable dimensions of programs for the gifted. This list was based upon those aspects of differential education which have received considerable and continued emphasis in both the general literature on the gifted and in the literature dealing more specifically with programs and program evaluation. The list was submitted to the panel of judges with the requests that (a) they rank in order of importance those features which they consider to be the most necessary for a worthy program, and (b) they stop ranking when that number of features which would assure a program of high quality had been reached. Thus, it can be seen that isolating the key features of programs for the gifted was based on the judgment of persons who were considered to represent the very best thinking in the field of education for the gifted.

The results of this inquiry were tabulated by means of a pooled frequency rating technique that was based on the popular method of assigning to the most frequently chosen response the rank of number one. In order that the rank numbers used in summing the data correspond to increasing magnitudes of importance, each rank was assigned a rank value. The rank values consisted of a series of numbers which were in the exact reverse order of the ranks. Since the maximum number of program features ranked by any one member of the panel of judges equalled 16, this rank value was assigned to rank one. Accordingly, rank two was assigned a rank value of 15 and so on, down to rank 16 which was assigned a rank value of one. These results are presented in Table 1. The pooled frequency rating of each program feature was expressed in terms of its total rank value. In addition to the 15 program features included in the original inquiry, Table 1 also contains 7 write ins submitted by various members of the panel and the total rank value of each. The program features are listed in hierarchical order according to total rank value.

It is readily apparent from Table 1 that the uppermost 7 features of differential programs emerged as a relatively distinguishable group. It should be noted that the remaining features were both good and desirable elements of special programs; however, the ratings of the judges seemed to warrant the assignment of priorities to certain aspects of pro-

gram development and evaluation. For this reason, the 7 features which achieved the highest collective ratings by the panel of judges were designated as key features. In the sections that follow, brief attention will be given to these important aspects of differential programs.

Discussion

Key feature A: The teacher. Although there is little question that all students should have well qualified teachers, the relatively greater demands made upon teachers by vigorous and imaginative young minds require that special attention be given to the selection and training of teachers for gifted and talented students. A number of statements in the literature in the form of principles (Ward, 1961; Williams, 1958) call attention to this important dimension of special programing and Newland (1962) has provided us with a breakdown of essential qualifications that can serve as guides in teacher selection.

Key feature B: The curriculum. Experiences comprising the curriculum for gifted and talented students should be recognizably different from the general educational program that is geared toward the ability level of average learners. These experiences should be purposefully designed to evoke and develop superior behavioral potentialities in both academic areas and in the fine and performing arts. A systematic and comprehensive program of studies should reach all children identified as gifted at every grade level and in all areas of the curriculum where giftedness is educationally significant. The careful development of distinctive syllabi, methods, and materials will help guard against a fragmentary or "more of the same" conception of differential education. A number of Ward's (1961) theoretical principles of education for the gifted are particularly relevant to curriculum development and can provide valuable guidance in constructing truly differential experiences.

Key feature C: Student selection procedures. The literature on giftedness is replete with information relating to the identification and placement of superior students. This key feature acknowledges the existence of all reliably identifiable types of giftedness and calls for the appropriate and discriminating use of several identifying instruments and processes. Periodic screening to obviate overlooking talent of any kind should be followed by increasingly refined, exacting, and fair appraisal of specific abilities. Identification and placement procedures should be carried out at least once annually, and provisions for succeeding search beyond the initial screening and for transfer into and out of the program should also exist.

Key feature D: A statement of philosophy and objectives. The essential role played by statements of philosophy and objectives in guiding the developing of *all* educational enterprises is well known. Underlying statements of philosophy and objectives should take into account the arguments that support special programs, the broad and specific goals of the program, and the distinction between the objectives of general education and those that have particular relevance to differential education for the gifted. Although there is some possibility of well developed programs existing without written statement about the nature of philosophy and objectives, it seems highly improbable that school systems that have not taken the time to develop such documents will make serious inroads toward the implementation of comprehensive differential programing.

Key feature E: Staff orientation. In order to succeed, any educational venture needs the cooperation and support of those persons who are responsible for its implementation. A sympathetic attitude toward special provisions for the gifted and a basic understanding of the theory and operation of a special program on the part of all staff members are considered to be important elements in helping to realize a program's maximum effectiveness. In most instances, staff members not directly connected with the gifted student program usually participate indirectly by identifying and recommending students for placement. It is therefore necessary that they recognize the nature and needs of potential program participants, are knowledgeable about the available facilities, and are committed to the value of differential qualities of experience.

Key feature F: A plan of evaluation. Within the field of education for the gifted, the need for evidence of program effectiveness is well recognized. But the particularized objectives and relatively unique learning experiences that characterize truly differential programs require the use of objective evaluative schemes that take into account a variety of important program dimensions. One approach to program evaluation developed by Ward and Renzulli (1967) utilized each of the key features here reported as focal points around which a set of evaluative scales were developed. The instrument, entitled Diagnostic and Evaluative Scales for Differential Education for the Gifted, was designed to point out specific areas in which program improvement seems warranted.

Key feature G: Administrative responsibility. A clear designation of administrative responsibility is an essential condition for the most efficient operation of all school programs. Although size and resources of a school system will determine the amount of administrative time that can be allotted to the gifted student program, it is necessary that the person in charge of even the smallest program be given sufficient time and resources to carry out his administrative duties in this area. Already overburdened administrators, supervisors, and teachers who are given the responsibility of a special program as an extra assignment without a corresponding reduction in other duties are likely to approach the task with less than optimal enthusiasm.

Summary and Conclusions

The intent of this study was to isolate those features within programs for gifted that are considered by recognized authorities in the field to be the most essential for a worthy program. The effort was aimed at providing a sound rationale for decision making to persons who are involved in various aspects of programing for the exceptionally able. On the basis of the rankings by the panel of judges, there appears to be justification for designating certain program elements and characteristics as key features in programs for the gifted. Such a designation is considered to be useful in identifying areas in which concentration should be placed in the process of program development and evaluation. The key features isolated in the present study do not pertain to any given pattern or organization, but rather attempt to embrace excellent practices presently operating, either individually or in varying combinations, and practices that can and should be inaugurated in view of the behavioral potential of students who possess identifiably superior abilities.

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education for the gifted. In The Council for Exceptional Children, *CEC selected convention papers 1967.* Washington, D.C.: CEC, 1967. Pp. 36-41.

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TABLE 1

Matrix of Frequencies with Which Each of 15 Program Features Were Ranked in Each of 16 Positions by 21 Selected Judges

Rank	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*Total rank value*
Rank value	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	
Program features																	
The teacher: selection and training	7 (112)	4 (60)	4 (56)	1 (13)	1 (12)	1 (11)	1 (10)										274
The curriculum: purposefully distinctive	3 (48)	4 (60)	6 (74)	1 (13)	2 (24)	1 (11)	1 (10)										240
Student selection procedures		4 (60)	4 (56)	2 (26)	3 (36)	2 (22)	2 (20)										220
A statement of philosophy and objectives	9 (144)	1 (15)	2 (28)	1 (13)						1 (8)							208
Staff orientation	1 (16)	6 (90)	2 (28)	1 (13)	1 (12)	3 (33)				1 (8)							200
A plan of evaluation					4 (48)	4 (44)	2 (20)		1 (9)	1 (8)		1 (6)		1 (4)			139
Administrative responsibility		1 (15)	1 (14)	2 (26)	3 (36)	1 (11)	1 (10)				1 (7)	1 (5)					125
Guidance services				1 (13)	2 (24)	1 (11)	3 (30)		1 (9)	1 (8)							95
Ability grouping and/or acceleration				2 (26)	1 (12)	2 (22)	1 (10)		1 (9)	1 (8)		1 (5)					92
Special equipment and facilities				3 (39)	1 (12)	1 (11)					1 (7)			1 (4)			73
Use of community resources			1 (14)					2 (18)	1 (8)	1 (7)						1 (3)	50
Early admission				1 (13)		1 (11)		1 (9)	1 (8)								41
Community interpretation						1 (11)		3 (27)								1 (2)	40
Supplementary expenditures				1 (13)		1 (11)							1 (6)	1 (5)			35
A program of research				1 (13)					1 (8)						1 (3)	1 (1)	25

Note: – The seven write ins, each receiving one vote, and their total rank values, are as follows: Community Support for Quality Education, 10; Morale and Esprit de Corps, 9; Student Assessment and Reassessment, 9; Student Performance, Evaluation, and Reporting, 10; Interpretation to Parents and Selected Students, 9; Small and Flexible Groups, 13; and Pupil Interpretation, 13.

Numbers in parentheses denote the weighted value of each frequency, i.e., the frequency multiplied by its rank value.

HOW TO DESIGN, DEVELOP AND IMPLEMENT A PROGRAM FOR THE GIFTED AND TALENTED IN A LOCAL SCHOOL DISTRICT

By William G. Vassar
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Connecticut State Department of Education

The most recent Federal study on the education of the gifted and talented (1971) revealed that the talents of between two million and three million gifted and talented children and youth go unrecognized and undeveloped in the thousands of school districts throughout the 50 states. It also indicated that in a majority of such districts the concern for this group of students is given low priority and is sometimes met with open hostility from many groups.

School administrators and other school staff should research the various public and private studies on the gifted and talented which show that such children and youth in later life very often make outstanding contributions to our society, specifically in the arts, politics, business and science.

It is often said that such children "will make it anyway." That is a weak, in fact dangerous premise for ignoring the needs and the potential of the vast number of gifted and talented children and youth who in fact can *not* fully develop their special abilities without special help. We are now witnessing the national realization, slow in coming, that in nurturing the gifts of these special children we are making an important investment in human resources to deal with the critical problems faced by society – problems such as incurable disease, hunger, inflation, etc.

And yet, in far too many school districts, there persists a traditional attitude which inhibits or prevents developing special learning opportunities for unusually talented or gifted students. As a consequence, these students remain among the most neglected children and youth with special needs in our schools today.

After a look at this dismal aspect of the problem, the positive aspect is that a number of states with a large number of school districts are now providing special programs for their gifted and talented children and youth. These are the states which provide:

(1) full-time consultative services to local school districts from the State Education Agency;

(2) maintain a special state statute, with proper funding, to assist the school districts in developing programs, and

(3) maintain a strong professional development program through college and university training programs and offer a wide variety of in-service training opportunities to lay and professional personnel. Prominent among such states are California, Connecticut, Florida, Georgia, Illinois, Nebraska, North Carolina and Pennsylvania.

Most of these states have at least one full-time consultant in the state education agency to assist local school districts in designing, developing and implementing programs responsive to the needs of children and youth with extraordinary learning ability and/or outstanding talent in the creative arts. This article is offered as a possible resource of assistance to educators interested in developing programs for the gifted and talented in their schools or school districts.

For those professionals who have interest in a thrust toward a more coordinated effort between general education and special education for the gifted and talented, the fact must be recognized that every school in the nation has some children and youth who have *demonstrated*, or who have the *potential* for extraordinary accomplishment. How a classroom teacher, curriculum coordinator, and other professional educators perceive the needs of the gifted and talented, and how they attempt to provide services and/or programs to meet those needs, will be determining factors in the response of gifted and talented students to new learning opportunities.

The gifted and talented need to:

- use, develop and understand higher mental processes.
- interchange and dialogue with their intellectual peers (those with similar interests, talents, etc.).
- have the time, space, and staff necessary to assist in the development of their outstanding ability.
- understand, appreciate and study the diversity among individuals.
- have available an appropriate identification process and access to specialized counseling.
- learn to develop life styles commensurate with their particular profile of abilities and talents.
- have the opportunity to assess their unique talents and interests.

For many years, most schools have had teachers who on their own initiative provided stimulating thinking and feeling environments for the gifted and talented. Today, with the increasing mobility of teachers, such fragmented opportunities occur far less frequently for children most of whom are held to a curriculum design geared to the middle of the ability spectrum. Professional educators, especially those dealing with curriculum and instruction, need to be actively involved on a continuing basis if a school district is going to provide a meaningful program for its gifted and talented children and youth. From the beginning, it must be obvious that any curriculum and administrative designs for the gifted should be coordinated and articulated with any provisions for such children and youth existing in the school district.

Professional educators should be extremely aware of policies; available instructional and pupil personnel; special educational services; attitudes of the various publics in the community; and various state and federal resources relating to all aspects of gifted and talented children and youth. These conditions may impose some limitations. Methods for over coming or modifying these conditions may have to be varied depending on the local situation.

One interesting note should be kept in the front of any discussion. Regardless of the specifics of a curriculum design in the school district, any special program for *any exceptional child* is basically *one segment* of meeting the needs of individual groups of children. It should not be a design giving special privileges to a select few for a narrow purpose.

Broadening your Concept of Giftedness

When we consider providing special programs for exceptional children, we have to discuss who they are as we look at a broadened concept of giftedness in the 70's. Who, indeed, are they? For many years, planning and the limited programming we have had in school districts has centered around the high I.Q., highly motivated and interested youth. A number of school districts have excellent programs in this category.

This is but *one* segment of the gifted and talented population as we perceive it in the mid-seventies. In the past few years, widespread attempts have been made to include many other types of gifts and talents:

• *Children and youth who are capable of high creative-productive thinking.* These are youngsters who deal with their thinking and feeling processes in an extremely fluent, flexible, original and/or divergent manner. Many school districts identifying and programming for this type of child utilize the Torrance Tests of Creativity along with various check lists and rating scales developed to assist the professional staff in better identifying this specific segment of the gifted and talented population.

• *Bright underachievers.* Many times the school districts are concerned about the pupil who scores consistently at a very superior level on appropriate standardized tests (I.Q., achievement, aptitude, etc.), and should by such testing indicators be functioning at a high level. However, these children and youth fail to make it in general education and are not eligible for a regular "gifted" program due to the lack of classroom achievement. It is well established that such children and youth may have social and emotional factors inhibiting their path to utilizing their potential. This target group of children and youth is a very real part of the total picture of education of the gifted and talented. Impact types of programs would certainly retrieve a large number of talented youth who may otherwise be lost to society forever.

• *Children with potential to gain very superior levels of ability.* These are children and youth who live in sparsely populated and urban areas who because of certain economic, cultural and environmental factors do not demonstrate high levels of ability in the school setting. They are those we call the culturally different, children and youth who have potential to gain high levels of ability, but who have not had the advantages of other children in other sectors of our society. Recent research has shown us that we are able to uncover such potential extraordinary abilities and provide special programs to meet their unusual needs. A number of urban and rural areas throughout the nation have identified and provided special programming for such children and youth.

• *Children and youth who exhibit superior ability for leadership.* These are pupils who would be identified subjectively as possessing superior psycho-social skills and human relations skills essential to high levels of leadership. There are certain personality traits and skills which can be identified and nurtured at an early age through special programs and/or services for greater talent retrieval within our society.

• *Children and youth who have outstanding talent in the creative arts.*

– *Music* – pupils who exhibit evidence of advanced skills in performance and/or imaginative insight into composition, or who possess the potential to gain such high levels of performance and/or composition skills.

– *Visual Arts* – those who possess outstanding talent or the potential to gain such talent in the areas of sculpture, oils, water colors or other expressive media.

– *Performing Arts* – these are children and youth who have demonstrated potential or ability in the theatre arts, dance, etc.

Educators should understand that those who excel in the various areas of the arts need not be those who are also successful in their academic pursuits. Too often various pupils have been "screened out" or eliminated from special programs in the arts because they did not perform at a high level in the academic content areas.

If we consider all of the sub-groups mentioned, we have certainly broadened our concept of the gifted and the talented in the past few years, from one of searching for a narrow spectrum of high academic achievers to one of searching for many other kinds of gifts and talents existing in the schools of America today.

IDENTIFICATION

What about *identification* of all of the types of talent we have been exploring? We will probably never reach ultimate sophistication in the identification process of all these children and youth, but the utilization of a multicriteria approach will assist us in becoming more sophisticated in our process of identification. Besides the many available standardized tests, there are many subjective factors we can utilize to identify the intellectually or potentially talented student. There are numerous rating scales, teacher check-lists, anecdotes, professional observations, parent interviews, etc. *The key factor* in the screening and identification process is that we utilize a variety and multiplicity of selection procedures. The following resources are examples of noteworthy screening and identification resources to screen and identify a number of different types of talent.

Report of the TASK FORCE on: Identification, Connecticut Programs for the Gifted and Talented, Alan J. White (Ed.) Connecticut State Department of Education, 1974

The Identification of the Gifted and Talented
Ruth A. Martinson. National/State Leadership Training Institute on the Gifted and Talented. Ventura, California. School District 535 East Main Street, Ventura, California 93001

The following school districts exemplify the process of designing, developing and utilizing noteworthy identification procedures to identify a number of different types of talent along with our own state.

California	
Garden Grove	Jean Delp
Inglewood	Sandra Kaplan
Los Angeles Unified Schools	Allyn Arnold
Palo Alto Schools	Ruthe Lundy
San Diego Unified Schools	Dave Hermanson
San Francisco Unified Schools	William Cummings
Connecticut	
Bloomfield Public Schools	Lynn Niro
Colchester Public Schools	Mel Hyatt
Ellington Public Schools	Frank Millbury
Farmington Public Schools	Pat Howley
Norwich Public Schools	Felice Kaufmann
Stamford Public Schools	Margaret Toner
Florida	
Dade County (Miami)	James Miley
Hillsborough County (Tampa)	Diane Grybeck
Palm Beach County (West Palm Beach)	Robertine Carleton
Polk County (Barton)	Elsie Estroff
Illinois	
Chicago Public Schools	Richard Ronvik
Rockford Public Schools	Charlotte Hoffman

These school districts use both objective (tests, etc.) and subjective checklists; rating scales, etc., to assist in screening and eventually identifying many types of gifted and talented children and youth.

In the creative arts, we have to depend almost solely on subjective analysis. Much success has been realized in utilizing the professional judgments of artists, musicians, sculptors,

etc., to determine advanced skills, imaginative insight, intense interest and involvement in such areas of talent. The High School Center for the Creative Arts in New Haven, Connecticut; the North Carolina School for the Arts in Winston Salem, North Carolina and the High Schools of Music and Art and the Performing Arts in New York City utilize such multi-subjective criteria to identify these children and youth.

The following researchers have developed various checklists, rating scales and packets for identifying many types of giftedness and talent:

California – John C. Gowan – San Fernando Valley State University, Northridge, California; Paul D. Plowman – California State Department of Education, Sacramento, California.

Connecticut – Joseph S. Renzulli – University of Connecticut, Storrs, Connecticut.

Florida – Dorothy Sisk – University of South Florida, Tampa, Florida.

Georgia – Katherine Bruch – University of Georgia, Athens, Georgia; E. Paul Torrance – University of Georgia, Athens, Georgia; Leonard Lucito – Georgia State University, Atlanta, Georgia.

New York – Abraham Tannenbaum – Teachers College, Columbia University.

North Carolina – James J. Gallagher – University of North Carolina; Frank Porter Graham – Child Development Center, Chapel Hill, North Carolina.

Washington – Maurice Frehill – University of Washington, Seattle, Washington.

Administrative Design

The choice of an administrative design is one of many important decisions involved in program planning.

The administrative design is intended to facilitate maximum effectiveness of the program in relation to existing conditions. For the most part it will be molded by the philosophy and objectives of the local school district. Further, it will reflect such conditions as geography, available facilities and transportation, along with political, social and educational implications. With these various elements in mind, professional educators should consider a number of alternative designs before making a decision as to which will prove most effective for the school district.

There are a varying number of semi-separation designs in which the youngsters spend some of their time in their regular classes and an *appropriate sequence* of time in a special setting. For example, the resource room design, the itinerant teacher approach, the cluster approach, a district-wide center, a regional center are only a few of the semi-separation designs which are used to bridge the gap between the students' special and general education needs. Administrative designs may be considered a secondary component of programming.

We have a number of different types of semi-separation designs in Connecticut:

- *Simsbury* – elementary school programs for the gifted and talented where the children are served in their home schools by "traveling teachers of the gifted." Two elementary schools share a fulltime teacher of the gifted at the 4-6 level.
- *Ellington, Greenwich and Stamford* – elementary pupils are transported to centers within the district for special programs. These children are serviced by a cluster of teachers in the center. The children usually spend from 20% to 50% of their school time in the special setting.
- *Talcott Mt. Science Center (Avon)* – a center built on a former NIKE site for children and youth highly talented in astronomy, meterology, geology, etc. This center services the *entire state* and provides special programs to school districts for such children and youth. It also conducts Saturday seminars (3 hours) for independent research in such sciences as chronobiology, astronomy, geology, computer, ecology, etc.
- *Educational Center for the Talented in the Arts (New Haven)* – an eighteen school district high school center for the talented in the areas of music, dance, the visual arts, media, etc. Pupils spend half of their day at their home high school and half at the ECA, working with professional artists and staff in their own craft areas.

SPECIFIC PLANNING

Planning and Placement Team

The district should consider organizing a planning and placement team within the school district to determine the needs of gifted and talented children and youth, and how those needs will be met. The team should include teachers, administrators, curriculum specialists, pupil personnel staff and parents. This team is delegated the responsibility by administration to determine the following:

1. Need(s) for the programs in the school districts
2. Philosophy and objectives of the Special Program
   a. long-range goals
   b. short-range objectives
3. Type(s) of gifted and talented to be served
4. Screening and identification criteria and processes for each group of gifted and talented
5. Professional and lay staff to serve such children and youth
6. Physical facilities and transportation
7. Inservice Training of special and general staff in the school district
8. Differentiated learning and thinking experiences and activities to meet the specific needs of those children and youth identified
9. Administrative design
10. Community resources – human and physical
11. Special funding – local, state, private, Federal
12. Evaluation – program, process, etc.
13. Role of the parent
14. Special consultative services
15. Articulation of Special Programs with General Education

It may seem apparent that some program elements are more significant than others. Those mentioned here are necessary elements for professional educators to consider in designing and developing a reasonable special program for the gifted and talented. Much has been written in the literature relative to the 15 factors listed. Each should be considered in the context of the local school district and each should be thoroughly researched, studied, analyzed and synthesized to determine which direction the school district should be taking for its gifted and talented children and youth.

However, there are two major factors which deserve special attention as the total program begins to develop.

First, when a youngster is identified as having a specific talent or gift, it is most important that he be provided with *differentiated curriculum experiences* and activities tailored to his or her special needs. "More of the same" or "enrichment undefined" or "expediency acceleration," does not constitute a program. This places the curriculum specialists and directors in key roles to determine what kinds of differentiated kinds of curriculum designs we need for such children and youth. For example, the Hartford, Connecticut Public Schools developed a set of curriculum packages for

the academically gifted in cooperation with a number of surrounding school districts. The project was called Operation ASTRA. The differentiated curriculum packages included "Myths and Mythology," "Conflict and the Law" and another in differentiated mathematics. The California State Department of Education has also developed similar materials in the academic areas for elementary school pupils.

A second crucial factor should be differentiating the teaching strategies used by teachers in dealing with the higher mental processes possessed by gifted children and youth. For example, Dr. Frank Williams, a noted researcher in creativity and giftedness, has developed a series of 18 differentiated teaching strategies for use with gifted and creative elementary pupils. These strategies provide the teacher of the gifted with tools to deal with the higher levels of thinking (analysis, synthesis, evaluative) these children are capable of handling. The Connecticut State Department of Education has developed a slide presentation on *how to use* such strategies in the classroom with the gifted and creative child. Many of the Connecticut school districts with programs for the gifted use the Williams strategies in their programs. The slide presentation is available as an inservice and for those school districts wishing to explore the use of these strategies.

Differentiated curriculum designs and stressing special qualities such as originality, fluency of ideas, intellectual curiosity, independence of thought, conceptual elaboration, etc., require sequences of time for planning with instructional personnel to assure the articulation and coordination with the general curriculum designs.

Differentiated teaching strategies which stress the thinking and feeling processes of analysis, synthesis, and elaboration require time and training for the instructional staff who will work with these special youngsters. Utilizing the "low cognitive-regurgitive level" is one sure way of limiting a teacher's effectiveness with such children and youth.

Professional personnel, especially those involved in the instructional process and those who are designing, developing and implementing the differentiated curriculum designs and teaching strategies, know that the best instructional programs can be doomed to failure if they are not based on sound public understanding and support. Today's communities are actively involved in their schools, and they are increasingly sensitive to changes within them. Schools cannot move far from the ideas of their constituents without experiencing difficulties.

Any school district seeking to develop a sound program for the gifted and talented must be concerned with keeping the many interest groups of the community well informed. The first step toward effective community relations is a *totally informed* general staff committed to the special program for the gifted and talented. A divided professional staff can quickly destroy the best efforts of a planned program. Administration, through its instructional leaders, should assume a major role in informing and working with staff and the many publics in the community. Those who assist in developing a program are usually its best supporters. Parents of the gifted and talented are actively interested in their children's individual needs. As a group, they can be counted on to give active support to a program, if they are well informed.

Counseling of parents of gifted and talented children and youth includes both individual and group conseling. If a program is to operate successfully, parent counseling is necessary. The degree of involvement will differ, depending on the complexity of the programs. The major task will, of course, occur during the first year of operation, when the identification process reveals that it will be necessary to communicate with a large group of parents. An effective informational group meeting, or series of meetings, should be held to establish the groundwork for the special program.

Parents should be informed about the broadening concept of giftedness, its implications, how they can assist their child and what the instructional program is all about. From that point on, counseling will be, more than likely, on an individual basis.

The individual who does the counseling must be familiar with the psychology of the gifted and talented, at the peril of doing more harm than good when dealing with parents. Parents will be quick to notice uncertainty and lack of commitment. They must feel that the program for their child is a quality one. With that feeling in the beginning, success can be predicted; without it, failure may result.

CONCLUSION

In summary form, here are some of the major features of a program design:

1) Those involved in the total program should have a thorough knowledge of the broadened concept of giftedness.
2) Curriculum instructional and pupil personnel should play key roles in designing and developing programs.
3) An assessment of needs should be conducted in the school district to point up the priority needs of the gifted and talented.
4) The philosophy and objectives for both the pupils and program should be clearly established.
5) Identification criteria for the specific target group(s) should be fully developed.
6) The administrative design to serve the pupils should be developed according to local needs.
7) A differentiated curriculum design articulated with differentiated teaching strategies for the gifted and talented should be designed and developed as the core of the program.
8) The differentiated program should be articulated and coordinated with total general education at all levels.
9) Public understanding should be nurtured among the many publics of the community.
10) Instructional and supportive personnel should be carefully selected.
11) A definitive plan for evaluation should be developed to assure that the goals for both pupil and program will be met.
12) Parents should play an integral role in all aspects of the program.
13) Community resources of both the human and physical nature should be fully utilized by those developing and implementing the program.
14) Funding sources from all public and private sectors should be explored.

Programming for the gifted and talented is an integral part of the total educational process. By their special nature, programs will vary from district to district. We should, however, consider each of the factors mentioned when designing, developing and implementing these special education programs for the gifted and talented.

IDENTIFICATION OF THE GIFTED AND TALENTED

One of the foremost concerns in programming for the gifted and talented is identification. This process actually serves two purposes. It enables a Planning and Placement Team to determine which students possess exceptional abilities such that their needs are not met in the regular program. Further, it becomes prescriptive to the extent that the assessment process provides teachers with information used to individualize program planning.

No single identification scheme is without its shortcomings, nor is any one design appropriate for the identification of every type of gift or talent. What is needed is a variety of measures, both objective and subjective, which will support and supplement one another.

Connecticut legislation and administrative guidelines are based on a broadened concept of giftedness, one which views traditional academic ability as only one criteria within a wide spectrum of intellectual aptitudes and abilities, including creativity and talent in the graphic or performing arts.

As spelled out in Section 10-76 of the Connecticut General Statutes, "extraordinary learning ability" is deemed to be the power to learn possessed by the top five per cent of the students in a school district as chosen by the special education Planning and Placement Team on the basis of (1) performance on relevant and standardized measuring instruments or (2) demonstrated or potential academic achievement or intellectual creativity.

"Outstanding talent in the creative arts" is deemed to be that talent possessed by the top five per cent of the students in a school district who have been chosen by the special education Planning and Placement Team on the basis of demonstrated or potential achievement in music, visual arts or the performing arts.

Thus we see that children capable of high performance include those with demonstrated achievement and/ or potential ability in any of the following areas, singly or in combination:

1) general intellectual ability
2) specific academic aptitude
3) creative or productive thinking
4) leadership ability
5) visual and performing arts
6) psychomotor ability
7) disadvantaged potential

Using these as criteria for gifted and talented may result in the identification of three to five per cent of the total school population, depending on how many students the program can accommodate.

The responsibility for the identification of eligible pupils rests with the superintendent of schools or an employee of the school district to whom he may delegate this responsibility. Such identification should be based on a study of all available evidence as to the pupil's ability and potential made by personnel qualified to administer and interpret appropriate standardized tests, judge demonstrated ability and potential, and recognize outstanding talent in the creative arts.

Evidence as to a pupil's extraordinary learning ability and/ or outstanding talent in the creative arts must be satisfactory to the Secretary of the State Board of Education.

Evidence of giftedness and unusual talent may be determined in a multiplicity of ways. These screening and identification procedures should include objective measures as well as subjective evaluations by qualified professionals. These professionals are responsible for providing an integrated design which combines objective and subjective measures to cover such areas as:

1) Consistently very superior scores on a number of appropriate standardized tests.
2) Judgement of teachers, pupil personnel specialists, administrators, and supervisors who are familiar with the demonstrated and/or potential abilities of the individual
3) Evidence of advanced skills, imaginative insight and intense interest and involvement
4) Judgements of specialized teachers (i.e., art and music), pupil personnel specialists and experts in the arts who are qualified to evaluate the pupils' demonstrated and/ or potential talent.

As noted, systematic assessment practices vary according to the definition of giftedness used. In every case, however, the procedures should be designed to avoid arbitrary cut-off points or limitations. The identification process should identify a small percentage of pupils with extraordinary ability and outstanding talent whose needs are such that they cannot be met in the regular school program.

PROJECT IMPROVE

System for Identifying Gifted and Talented Students
By Joseph S. Ranzulli

The purpose of this system is to provide persons who are involved in the identification of gifted students with a comprehensive plan that will assist them in both the screening and the selection process. The system is designed

1) to take account of a variety of identification criteria,
2) to minimize the amount of individual testing required, and
3) to show a relationship between the objectives of the program and the criteria upon which selection is based.

The steps involved in identification should take place in the spring of the year before students are placed in the program. For students who are continuing in the program, the same procedure should be followed; however, test data should be updated and information should be obtained from special program teachers who have worked with the students during the preceding year. Screening and selection should be carried out by a committee consisting of teachers, administrators, and pupil personnel specialists.

Before the screening and selection system can be implemented the following three decisions should be made:

1) How many students will be involved in the program?
2) What area or areas will the program focus upon? (Language Arts, Science, etc.)
3) From what grade levels will the students be selected?

Once these basic program decisions have been made, the following steps should be followed:

PART I: SCREENING

Step A: Intelligence Test Information

Section A of the Screening and Selection Form should be completed for all students who are in the grade(s) below the

grade(s) from which students will be selected for the program. In the very early stage of the screening process, all youngsters in these grades should be considered eligible for the program. This approach will minimize the chances of overlooking youngsters who do not earn a high evaluation on any one criterion, but who may be good candidates for the program when several criteria are looked at collectively. Each step in this identification system will be directed toward reducing the number of students who are eligible for the program.

If the program deals mainly with one or more of the traditional academic areas, a minimum group intelligence test score should be established. Any student who has scored at or above this cut-off point on any of his group intelligence tests should be continued in the screening process.

Because of errors in measurement that are inherent in group measures, and because some youngsters simply do not demonstrate their best performance in group testing situations, an individual intelligence test should be administered to all students who score five or less points below the group test cut-off score. Because of the cultural inequalities in intelligence tests, minority group students and students coming from low socioeconomic backgrounds who score 15 or less points below the cut-off score also should be given an individual test. Since individual intelligence tests are also culture bound, the subjective judgment of the psychologist should be used in interpreting test performance for minority group and low socio-economic youngsters.

Scores from intelligence tests should rarely, if ever, be used as the only criteria for admission to a program for the gifted. This is especially true if the program focuses upon the development of non-academic talents such as art, music, leadership, drama, and creativity. If the program does focus on one or more of the traditional academic areas, students with unusually high scores can usually be recommended for the program without further consideration of additional information. With the exception of students who are unusually low in intelligence, a good rule to follow is THAT NO CHILD SHOULD BE EXCLUDED FROM THE PROGRAM SOLELY ON THE BASIS OF INTELLIGENCE TEST RESULTS.

If the program deals with developing the creative potential which is present in all youngsters, or with special aptitudes and talents such as music, mechanics, drama, etc., Steps A and B should be skipped and screening and selection should focus on Steps C, D, and E.

Action based on Step A

After all intelligence information has been gathered for students who are eligible for a program that deals with one or more of the traditional academic areas and cut-off points have been established, the following decisions can be made:

1) Students who score ten or more points above the cut-off score should be recommended for placement in the program.

2) Students who score ten or more points below the cut-off score should not be recommended for placement in the program.

3) All other students should be continued in the screening process.

Step B: Achievement Information

If the program deals with one or more of the traditional academic areas, Section B of the Screening and Selection Form should be completed for all eligible students who have been continued in the identification process. Section B points out each student's best area(s) of performance, and this information should be carefully considered when the program focuses on a particular academic area. For example, if the program is designed to develop advanced levels of proficiency in science, then special consideration should be given to students who have demonstrated high performance in this area. If a variety of special program offerings are available, but space or scheduling problems prohibit enrollment in more than one area, student interest should be respected, and, if necessary, interviews with a guidance counselor should be arranged to help students clarify their interests.

At this point, the screening and selection committee should have a fairly good idea about which students are the best achievers, but whenever there is some doubt about a student's past performance, the information required in Step C should be gathered.

Special consideration should be given to students who score unusually high on intelligence tests, but who display poor performance on achievement tests and/or course grades. These youngsters may be bored by a curriculum which has failed to challenge their superior abilities, and this lack of challenge sometimes causes them to be discipline problems in the regular classroom. A special program may be the best way to renew these students' interest in learning.

Action Based on Step B

Because of variations in student motivation, different standards in grading practices, and the frequent lack of relationship between course content and standardized achievement tests, decisions based on Step 2 should be approached with great caution. Whenever there is any doubt about a student's motivation and ability to accomplish work in the special program the additional information suggested in Step C should be gathered. With these cautions in mind, the following action might be based on Step B:

1) Students who have unusually high achievement in the area(s) with which the special program will deal should be recommended for placement.

2) Students with unusually low achievement should not be recommended for placement (note above caution about students who have high intelligence scores but low achievement test scores and/or course grades). Students who are eliminated at this step may be nominated later as a special recommendation.

3) All other students should be continued in the screening process.

Step C: Teacher Judgment

A Scale for Rating the Behavioral Characteristics of Superior Students (SRBCSS) should be completed for all students who have not yet been selected for the program. This scale was designed to serve as a guide for teacher judgment in the areas of learning, motivation, creativity, and leadership. The scores from this scale should be recorded in Section C of the Screening and Selection Form. The mean scores of the four separate scales of the SRBCSS should be computed and the comments of teachers should be carefully considered.

Action Based on Step C

1) Students with the highest scores on the SRBCSS or other rating scales should be considered for placement in the special program.

2) Remaining students should not be recommended for placement unless they are nominated in Section D.

Step D: Special Nominations

After a final list has been compiled, the list should be circulated to teachers from the sending classes and they should be allowed to make special nominations for any students who are not on the list but who they feel should be

given further consideration. Teachers should meet with the screening and placement committee and be given an opportunity to make a case for their special nominations. Whenever a child is not placed in the special program, a brief statement which summarizes the reasons for not being placed should be sent to the teacher who nominated the child.

Step E: Special Aptitudes and Talents

Whenever a program deals with the development of special aptitudes and talents, the screening and selection process should show a close relationship between the ability being developed and the criteria which are used for identification. In other words, if the program is mainly directed toward the development of general creativity, then tests of this aptitude should be given primary consideration in the identification process. If the program deals with the development of talents such as art, drama, or music, then persons who are qualified to make judgments in these areas should conduct auditions and/or review samples of students' work. Because of the limited number of objective instruments for measuring various kinds of talents in the fine arts, a good deal of the criteria for selection in these areas will have to depend on the subjective judgment of experts. Some instruments are available for measuring specific abilities such as mechanical aptitude, judgment for design, physical dexterity, etc., and current listings of instruments in these areas should be reviewed as a possible source of identification criteria.

PART II: SELECTION

At the conclusion of Step D (or Step E if the program deals with special aptitudes or talents), the Summary box on the first page of the Screening and Selection Form should be completed and all students who have been recommended in one of the screening steps should be reviewed by the screening and selection committee. In most cases, the list of students recommended for the program will exceed the number of students that the program can accommodate, and the major task in selection will be to trim the list down to the desired number. In addition to certain practical considerations such as balance between boys and girls, geographic locations of students, scheduling, etc., some general guidelines can be used to assist in making the final decisions.

The most important consideration is to achieve a balance among the various types of students who have been recommended. A good idea is to arrange the groups in such a way that they contain some high IQ students, some high achievers, and some students who have received high ratings in motivation, creativity, and leadership. This approach may cause the committee to eliminate some high IQ or high achievement students in favor of students who are lower in these abilities but high in characteristics that will be important to the overall functioning of the group. The result will be a more heterogeneous group that can profit from each other and that can engage in activities that require a cooperative blend of various abilities.

A second guideline in making the final selection is to consider which students might suffer adverse effects from participating in a program that requires high performance. Some students do not adjust well to the heightened competition that is almost always present in programs that bring together highly able youngsters, and for this reason, it may be wise to eliminate students whose participation in the program will place them under undue pressure.

The development of the Scale for Rating Behavioral Characteristics of Superior Students (SRBCSS) represents an attempt to provide a more objective and systematic instrument that can be used as an aide in guiding teacher judgement in the identification process. It is not intended to replace existing identification procedures such as measures of intelligence, achievement and creativity; rather, it is offered as a supplementary means that can be used in conjunction with other forms of identification.

A guiding principle in using the SRBCSS emphasizes the relationship between the student's subscore and the types of curricular experiences that will be offered in a special program. Every effort should be made to capitalize on an individual's strengths by developing learning experiences that take account of the area or areas in which the student has received high ratings. For example, a student who earns high ratings on the Motivational Characteristics Scale will probably profit most from a program that emphasizes self-initiated pursuits and an independent study approach to learning. A student with high scores on the Leadership Characteristics Scale should be given opportunities to organize activities and to assist the teacher and his classmates in developing plans of action for carrying out projects.

In addition to looking at a student's profile of subscores for identification purposes, teachers can derive several useful hints for programming by analyzing student ratings on individual scale items. These items call attention to differences in behavioral characteristics and in most cases suggest the kinds of educational experiences that are most likely to represent the youngster's preferred method or style of learning. Thus, a careful analysis of scale items can assist the teacher in her efforts to develop an individualized program of study for each student.

SUMMARY SHEET

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____
Years Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Directions. These scales are designed to obtain teacher estimates of a student's characteristics in the areas of learning, motivation, creativity and leadership. The items are derived from the research literature dealing with characteristics of gifted and creative persons. It should be pointed out that a considerable amount of individual differences can be found within this population: and therefore, the profiles are likely to vary a great deal. Each item in the scales should be considered separately and should reflect the degree to which you have observed the presence or absence of each characteristic. Since the four dimensions of the instrument represent relatively different sets of behaviors, the scores obtained from the separate scales should not be summed to yield a total score. Please read the statements carefully and place an X in the appropriate place according to the following scale of values:

1. If you have seldom or never observed this characteristic.
2. If you have observed this characteristic occasionally.
3. If you have observed this characteristic to a considerable degree.
4. If you have observed this characteristic almost all of the time.

Space has been provided following each item for your comments.

Scoring. Separate scores for each of the ten dimensions may be obtained as follows:

- *Add* the total number of X's in each column to obtain the "Column Total."
- *Multiply* the Column Total by the "Weight" for each column to obtain the "Weighted Column Total."
- *Sum* the Weighted Column Totals across to obtain the "score" for each dimension of the scale.
- *Enter* the Scores below.

I Learning Characteristics . . . . . _____
II Motivational Characteristics . . . . . _____
III Creativity Characteristics . . . . . _____
IV Leadership Characteristics . . . . . _____
V Artistic Characteristics . . . . . _____
VI Musical Characteristics . . . . . _____
VII Dramatic Characteristics . . . . . _____
VIII Communication Characteristics — Precision . . . . . _____
IX Communication Characteristics — Expressiveness . . . . . _____
X Planning Characteristics . . . . . _____

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part I: Learning Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Has unusually advanced vocabulary for age or grade level: uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency.	☐	☐	☐	☐
2. Possesses a large storehouse of information about a variety of topics (beyond the usual interests of youngsters his age).	☐	☐	☐	☐
3. Has quick mastery and recall of factual information.	☐	☐	☐	☐
4. Has rapid insight into cause-effect relationships: tries to discover the how and why of things; asks many provocative questions (as distinct from informational or factual questions); wants to know what makes things (or people) "tick."	☐	☐	☐	☐
5. Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people, or things; looks for similarities and differences in events, people, and things.	☐	☐	☐	☐
6. Is a keen and alert observer: usually "sees more" or "gets more" out of a story, film, etc. than others.	☐	☐	☐	☐
7. Reads a great deal on his own: usually prefers adult level books; does not avoid difficult material; may show a preference for biography, autobiography, encyclopedias, and atlases.	☐	☐	☐	☐
8. Tries to understand complicated material by separating it into its respective parts; reasons things out for himself; sees logical and common sense answers.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	(1)	(2)	(3)	(4)
Add Weighted Column Totals	☐	+ ☐	+ ☐	+ ☐
Total				☐

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____
Years Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part II: Motivational Characteristics	*— Seldom or never*	*— Occasionally*	*— Considerably*	*— Almost always*
1. Becomes absorbed and truly involved in certain topics or problems: is persistent in seeking task completion. (It is sometimes difficult to get him to move on to another topic.)	☐	☐	☐	☐
2. Is easily bored with routine tasks.	☐	☐	☐	☐
3. Needs little external motivation to follow through in work that initially excites him.	☐	☐	☐	☐
4. Strives toward perfection: is self critical; is not easily satisfied with his own speed or products.	☐	☐	☐	☐
5. Prefers to work independently: requires little direction from teachers.	☐	☐	☐	☐
6. Is interested in many "adult" problems such as religion, politics, sex, race — more than usual for age level.	☐	☐	☐	☐
7. Often is self assertive (sometimes even aggressive): stubborn in his beliefs.	☐	☐	☐	☐
8. Likes to organize and bring structure to things, people, and situations.	☐	☐	☐	☐
9. Is quite concerned with right and wrong, good and bad: often evaluates and passes judgment on events, people, and things.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐	+ ☐	+ ☐	+ ☐
Total			☐	

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____
Years Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part III: Creativity Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Displays a great deal of curiosity about many things: is constantly asking questions about anything and everything.	☐	☐	☐	☐
2. Generates a large number of ideas or solutions to problems and questions; often offers unusual ("way out"), unique, clever responses.	☐	☐	☐	☐
3. Is uninhibited in expressions of opinion: is sometimes radical and spirited in disagreement; is tenacious.	☐	☐	☐	☐
4. Is a high risk taker: is adventurous and speculative.	☐	☐	☐	☐
5. Displays a good deal of intellectual playfulness; fantasizes; imagines ("I wonder what would happen if . . . ."); manipulates ideas (i.e. changes, elaborates upon them); is often concerned with adapting, improving and modifying institutions, objects, and systems.	☐	☐	☐	☐
6. Displays a keen sense of humor and sees humor in situations that may not appear to be humorous to others.	☐	☐	☐	☐
7. Is unusually aware of his impulses and more open to the irrational in himself (freer expression of feminine interest for boys, greater than usual amount of independence for girls); shows emotional sensitivity.	☐	☐	☐	☐
8. Is sensitive to beauty: attends to aesthetic characteristics of things.	☐	☐	☐	☐
9. Is nonconforming: accepts disorder; is not interested in details; is individualistic; does not fear being different.	☐	☐	☐	☐
10. Criticizes constructively: is unwilling to accept authoritarian pronouncements without critical examination.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐	+ ☐	+ ☐	+ ☐
Total				☐

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Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part IV: Leadership Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Carries responsibility well: can be counted on to do what he has promised and usually does it well.	☐	☐	☐	☐
2. Is self confident with children his own age as well as adults; seems comfortable when asked to show his work to the class.	☐	☐	☐	☐
3. Seems to be well liked by his classmates.	☐	☐	☐	☐
4. Is cooperative with teacher and classmates; tends to avoid bickering and is generally easy to get along with.	☐	☐	☐	☐
5. Can express himself well; has good verbal facility and is usually well understood.	☐	☐	☐	☐
6. Adapts readily to new situations; is flexible in thought and action and does not seem disturbed when the normal routine is changed.	☐	☐	☐	☐
7. Seems to enjoy being around other people: is sociable and prefers not to be alone.	☐	☐	☐	☐
8. Tends to dominate others when they are around: generally directs the activity in which he is involved.	☐	☐	☐	☐
9. Participates in most social activities connected with the school: can be counted on to be there if anyone is.	☐	☐	☐	☐
10. Excels in athletic activities: is well coordinated and enjoys all sorts of athletic games.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐ +	☐ +	☐ +	☐
Total				☐

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part V: Artistic Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Likes to participate in art activities; is eager to visually express ideas.	☐	☐	☐	☐
2. Incorporates a large number of elements into art work; varies the subject and content of art work.	☐	☐	☐	☐
3. Arrives at unique, unconventional solutions to artistic problems as opposed to traditional, conventional ones.	☐	☐	☐	☐
4. Concentrates for long periods of time on art projects.	☐	☐	☐	☐
5. Willingly tries out different media; experiments with a variety of materials and techniques.	☐	☐	☐	☐
6. Tends to select art media for free activity or classroom projects.	☐	☐	☐	☐
7. Is particularly sensitive to the environment; is a keen observer — sees the unusual, what may be overlooked by others.	☐	☐	☐	☐
8. Produces balance and order in art work.	☐	☐	☐	☐
9. Is critical of own work; sets high standards of quality; often reworks creation in order to refine it.	☐	☐	☐	☐
10. Shows an interest in other student's art work — spends time studying and discussing their work.	☐	☐	☐	☐
11. Elaborates on ideas from other people — uses them as a "jumping off point" as opposed to copying them.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐	• ☐	• ☐	• ☐
Total				☐

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Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part VI: Musical Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Shows a sustained interest in music -- seeks out opportunities to hear and create music.	☐	☐	☐	☐
2. Perceives fine differences in musical tone (pitch, loudness, timbre, duration).	☐	☐	☐	☐
3. Easily remembers melodies and can produce them accurately.	☐	☐	☐	☐
4. Eagerly participates in musical activities.	☐	☐	☐	☐
5. Plays a musical instrument (or indicates a strong desire to).	☐	☐	☐	☐
6. Is sensitive to the rhythm of the music; responds through body movements to changes in the tempo of the music.	☐	☐	☐	☐
7. Is aware of and can identify a variety of sounds heard at a given moment — is sensitive to "back-ground" noises, to chords that accompany a melody, to the different sounds of singers or instrumentalists in a performance.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐	+ ☐	+ ☐	+ ☐
Total			☐	

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part VII: Dramatics Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Volunteers to participate in classroom plays or skits.	☐	☐	☐	☐
2. Easily tells a story or gives an account of some experience.	☐	☐	☐	☐
3. Effectively uses gestures and facial expressions to communicate feelings.	☐	☐	☐	☐
4. Is adept at role-playing, improvising, acting out situations "on the spot."	☐	☐	☐	☐
5. Can readily identify himself with the moods and motivations of characters.	☐	☐	☐	☐
6. Handles body with ease and poise for his particular age.	☐	☐	☐	☐
7. Creates original plays or makes up plays from stories.	☐	☐	☐	☐
8. Commands and holds the attention of a group when speaking.	☐	☐	☐	☐
9. Is able to evoke emotional responses from listeners — can get people to laugh, to frown, to feel tense, etc.	☐	☐	☐	☐
10. Can imitate others — is able to mimic the way people speak, walk, gesture.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐ +	☐ +	☐ +	☐
Total				☐

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part VIII: Communication Characteristics — Precision	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Speaks and writes directly and to the point.	☐	☐	☐	☐
2. Modifies and adjusts expression of ideas for maximum reception.	☐	☐	☐	☐
3. Is able to revise and edit in a way which is concise, yet retains essential ideas.	☐	☐	☐	☐
4. Explains things precisely and clearly.	☐	☐	☐	☐
5. Uses descriptive words to add color, emotion, and beauty.	☐	☐	☐	☐
6. Expresses thoughts and needs clearly and concisely.	☐	☐	☐	☐
7. Can find various ways of expressing ideas so others will understand.	☐	☐	☐	☐
8. Can describe things in a few very appropriate words.	☐	☐	☐	☐
9. Is able to express fine shades of meaning by use of a large stock of synonyms.	☐	☐	☐	☐
10. Is able to express ideas in a variety of alternate ways.	☐	☐	☐	☐
11. Knows and can use many words closely related in meaning.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐ +	☐ +	☐ +	☐
Total				☐

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Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

Schooi _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part IX: Communication Characteristics -- Expressiveness	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Uses voice expressively to convey or enhance meaning.	☐	☐	☐	☐
2. Conveys information non-verbally through gestures, facial expressions, and "body language."	☐	☐	☐	☐
3. Is an interesting storyteller.	☐	☐	☐	☐
4. Uses colorful and imaginative figures of speech such as puns and analogies.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐	☐	☐	☐
Total				☐

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman

Name _____ Date _____

School _____ Grade _____ Age _____ Years _____ Months

Teacher or person completing this form _____

How long have you known this child? _____ Months.

Part X: Planning Characteristics	*—Seldom or never*	*—Occasionally*	*—Considerably*	*—Almost always*
1. Determines what information or resources are necessary for accomplishing a task.	☐	☐	☐	☐
2. Grasps the relationship of individual steps to the whole process.	☐	☐	☐	☐
3. Allows time to execute all steps involved in a process.	☐	☐	☐	☐
4. Foresees consequences or effects of actions.	☐	☐	☐	☐
5. Organizes work well.	☐	☐	☐	☐
6. Takes into account the details necessary to accomplish a goal.	☐	☐	☐	☐
7. Is good at games of strategy where it is necessary to anticipate several moves ahead.	☐	☐	☐	☐
8. Recognizes the various alternative methods for accomplishing a goal.	☐	☐	☐	☐
9. Can pinpoint where areas of difficulty might arise in a procedure or activity.	☐	☐	☐	☐
10. Arranges steps of a project in a sensible order or time sequence.	☐	☐	☐	☐
11. Is good at breaking down an activity into step by step procedures.	☐	☐	☐	☐
12. Establishes priorities when organizing activities.	☐	☐	☐	☐
13. Shows awareness of limitations relating to time, space, materials, and abilities when working on group or individual projects.	☐	☐	☐	☐
14. Can provide details that contribute to the development of a plan or procedure.	☐	☐	☐	☐
15. Sees alternative ways to distribute work or assign people to accomplish a task.	☐	☐	☐	☐
Add Column Total	☐	☐	☐	☐
Multiply by Weight	*(1)*	*(2)*	*(3)*	*(4)*
Add Weighted Column Totals	☐	+ ☐	+ ☐	+ ☐
Total				☐

IN-SERVICE TRAINING PROGRAM MODEL FOR PROFESSIONAL PERSONNEL IN THE EDUCATION OF THE GIFTED AND TALENTED

Philosophy

School districts function to meet the educational needs of the people they serve. To accomplish these ends, each component of the school district (general education, special education, etc.) deserves its share of resources such as time, people and funds. As you know, most decisions related to the setting of priorities among these components place "people" and "things" in competition for the all too scarce "time" and "resources." The greatest need is too often placed in the "things" category.

When we discuss training for an educational component, we are talking about a people activity. Each school district should be committed to the continuing education of all its professional personnel involved in the education of children and youth. This commitment is a natural extension of the commitment to quality education. Further, as the local school districts expand their instructional programs, add facilities and increase resources, they create or impose new expectations on instructional and ancillary staff for positive performance. As administrative and supervisory staffs expand their expertise through pre-service and graduate study, their expectations for professional performance by the general staff increase. A sensitive school district should, therefore, provide alternative opportunities for the continued professional growth of those who work with gifted and talented children and youth.

The total time, human and financial resources provided by the school district for such professional orientation, preparation and in-service training will directly reflect the district's concern for professional growth and the process that brings about change to meet the needs of the gifted and talented. Commitment to improved in-service training can best be reached when:

1) the district recognizes it as part of the total educational structure

2) the participants are involved in the planning and implementation

3) the district views inservice training to be as important as other components of the educational plan.

Basic Assumptions

When a school district has developed a philosophy relative to in-service training for the gifted and talented, operational guidelines must be designed to assure effective implementation of the philosophy.

These guidelines are represented by four variable components relative to the concept of in-service training: 1) human resources, 2) strategies, 3) content areas, and 4) the processes related to in-service training for the gifted and talented.

Each of these components is delineated by several basic assumptions.

1. *Human Resources*
   a. All target groups (Board of Education, community, administration, etc.) should have the development of professional competency in this area as a top priority.
   b. Commitment to improvement should precede the design of such improvement strategies.
   c. The local school district has a responsibility to provide for professional growth of its total staff. This in turn maximizes growth among the special groups of children and youth being served.
   d. Morale is related to competency and commitment.
2. *Strategies-Instruction*
   a. Recognition of individual differences demands utilization of a variety of differentiated teaching strategies.
3. *Content*
   a. Information and knowledge are constantly being changed, reworded, or refined.
   b. Responsible relationships with pupils and adults requires familiarity with appropriate bodies of information and knowledge.
4. *Processes-In-Service*
   a. School districts must determine that in-service training for the gifted and talented is a high priority of their program support system.
   b. The resource of time must be provided within which appropriate in-service activities can occur.
   c. Human and fiscal resources are essential to any well developed in-service program.
   d. Expertise required to:
      a. analyze in-service needs
      b. design and develop a program
      c. implement the prescribed program and evaluate the results gained
   e. School districts should be provided by the State Agency with models, professional assistance and resources to help establish priorities and needs for in-service education.

PART II
PROCESSES OF IN-SERVICE TRAINING FOR THE GIFTED AND TALENTED

The various processes of in-service training for the gifted and talented describe those functions which must be performed in order to assess, design, develop and implement a successful training program. The design and implementation of these processes may be carried out in various ways, approaches, directions and by various clusters of target groups of those to participate in the training.

These processes are defined in the following manner:

1. *Assessment of Needs* – assess the current status of a school district in relation to the specifics of education of the gifted and talented.
2. *Prescriptive* – Review the data gathered and then make selection of appropriate strategies which will initiate desired changes in staff.
3. *Evaluation* – appraisal which relates to the degree of success attained by the in-service program. Therefore, it is obvious that specific objectives of the training program, as well as written outcomes for professional personnel, are essential first steps to any productive evaluation.
4. *Interventions* – activities which reflect incorporation of various changes in objectives needs or outcomes. A continuous flow and utilization of feedback determines

the effective utilization of proposed activities.

The local school district should assume *primary responsibility for:*

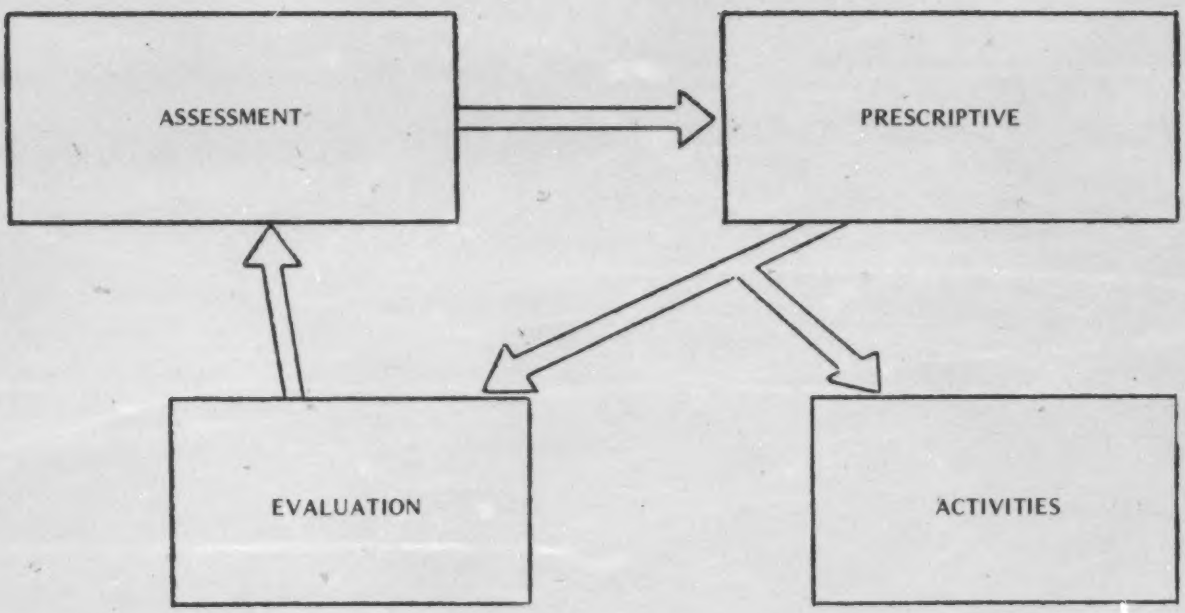
1. assessing its in-service needs relative to the education of the gifted and talented.
2. developing the goals and objectives for the gifted and talented in-service training program in their school districts.
3. specifying the outcomes they anticipate for the participants in the process.
4. initiating contact with various human resources who have the capability of providing interventions to effect their needs.
5. identifying the follow-through aspects as this relates to time, personnel and resources.

The state education agency should assume the responsibility for:

1. providing a scheme to assist the local school districts with the necessary technical assistance needed to develop the training program.
2. providing a clearinghouse where the districts may obtain information relative to accessability of professional expertise needed to conduct training programs.
3. coordinating state-wide and regional workshops and institutes to demonstrate how school districts may train personnel in the education of the gifted and talented at various levels of training.
4. maintaining a continual assessment as to the needs of training in the various local school district.

MODEL A

PROCESSES OF IN-SERVICE TRAINING



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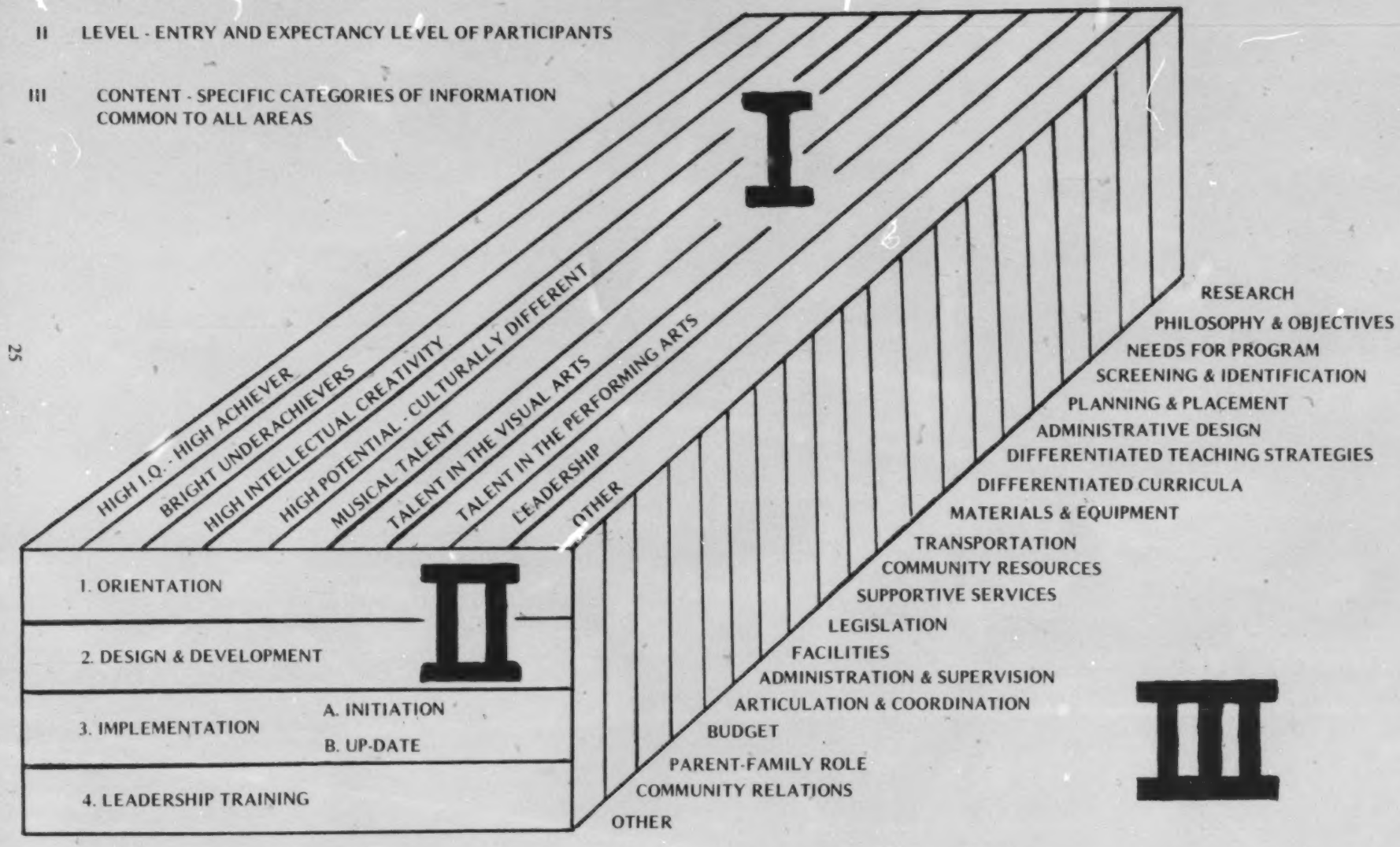
THREE DIMENSIONS OF IN-SERVICE EDUCATION

I AREA(S) OF GIFTED & TALENTED

II LEVEL - ENTRY AND EXPECTANCY LEVEL OF PARTICIPANTS

III CONTENT - SPECIFIC CATEGORIES OF INFORMATION COMMON TO ALL AREAS



SECTION A

(To be completed by school district)

A. Philosophy

1. Does your school district have a *written* policy relative to:

Yes or No

   a. in-service education _____

   b. travel _____

   c. conferences, conventions, workshop attendance _____

2. Does your district use in-service education as an integral part of a total program design:

   a. always _____

   b. sometimes _____

   c. rarely _____

   d. never _____

COMMENTS:

B. Time

Does your district provide time for in-service education:

a. regular basis (one day a month, week, etc.) _____

b. occasionally for special programs _____

c. as part of orientation programs _____

d. summer _____

e. other _____

COMMENTS:

C. Support

1. In-service education is supported by:

   a. granting credits which are applicable to salary increments _____

   b. released time _____

   c. financial assistance as per contract _____

   d. summer work arrangement _____

   e. other _____

COMMENTS:

2. Is there a specific budget allocation in your district for in-service education (speakers, travel, etc.)

   a. Yes _____

   b. No _____

COMMENTS:

D. Professional Staff

1. Involvement

   a. To what degree are teachers involved in developing in-service programs.

      1. always _____
      2. sometimes _____
      3. rarely _____
      4. never _____

COMMENTS:

2. Selection

   a. voluntary _____

   b. appointed _____

      1. administrator _____
      2. teachers associations _____
      3. combination (1 and 2) _____
      4. other _____

COMMENTS:

SECTION B
(Refers to Model II)

Side I – Areas of the Gifted and Talented

The following target group(s) of gifted and talented children and youth are in need of in-service program development:

a. High I.Q. – High Achiever _____

b. Bright Underachiever _____

c. High Intellectual Creativity _____

d. High Potential – Culturally Different _____

e. Musical Talent _____

f. Talent in the Visual Arts _____

g. Talent in the Performing Arts _____

h. Leadership _____

i. Other _____ _____

_____ _____

Side II – Entry and Expectancy

A. Entry Point

1. Public(s)

The development of in-service programs should reflect participation of:

a. Board of Education _____

b. Administration _____

c. Teachers _____

d. Ancillary Staff _____

e. Parents _____

f. Combination (please specify) _____

_____ _____

_____ _____

g. Others (please specify _____

_____ _____

_____ _____

2. The designing of in-service should reflect the current status of the population to be served. The group(s) identified in A-1 is at the following level of entry:

a. Orientation for program _____

b. Design and Development of a program _____

c. Implementation of a program _____

1. initiation _____

2. expansion and/or update _____

d. Leadership training _____

B. Expectancy

State in specifics what is expected of the group(s) at the completion of the in-service process.

1. The statements should reflect responses given in A-1 and A-2 and should be stated in behavioral terms.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Side III – CONTENT

Please check the *content components which should be included in the in-service program:*

a. *Research* _____

b. *Philosophy and Objectives* _____

c. *Needs for Program* _____

d. *Screening and Identification* _____

e. *Planning and Placement* _____

f. *Administrative Design* _____

g. *Differentiated Teaching Strategies* _____

h. *Differentiated Curricula* _____

i. *Materials and Equipment* _____

j. *Transportation* _____

k. *Community Resources* _____

l. *Supportive Services* _____

m. *Legislation* _____

n. *Facilities* _____

o. *Administration and Supervision* _____

p. *Articulation and Coordination* _____

q. *Budget* _____

r. *Parent-Family Role* _____

s. *Community Relations* _____

t. *Other* _____

EVALUATION OF PROGRAMS FOR THE GIFTED AND TALENTED

Gifted programs depend for their very existence on the support of local communities, boards of education, and the administrative and teaching personnel in each school district. In an effort to assure themselves that time and resources are being well spent, these groups and individuals rightfully expect special programs to be held accountable for instructional outcomes and fulfillment of stated objectives. Evaluation of programs for the gifted and talented is, however, fraught with difficulties. It is no simple matter, for example, to locate tests which adequately measure gains in special interest areas or which assess levels of cognitive operation beyond simple recall of facts. It is also difficult to measure many important affective outcomes. However, with a thorough knowledge of the techniques and instruments available, meaningful evaluation can be achieved.

ISSUES IN EVALUATION AND ACCOUNTABILITY IN SPECIAL PROGRAMS FOR GIFTED AND TALENTED CHILDREN

– By Maurice J. Eash, University of Illinois at Chicago Circle

Accountability and evaluation have become code words for a pervasive public sentiment that investments whether in material goods like automobiles or social goods like education should return due value. That bumpers don't fend off bumps or education does not educate is viewed as a failure of producers being held accountable for making good on the promised performance of their goods when the consumer made a commitment of good faith in the producer's initial claims.

Evaluation enters into this dispute as a process which checks the goals obtained in a program against the goals promised. However, evaluation is more than determining the amount of agreement between goals, just as consumer protection is more than a haggle over a fair price. In the large they culminate in philosophical differences, the necessity of ordering values along some priority, and the expansion of considerations to whether the goals were worth pursuing. How goals were selected, what shifts were made from the initial formulation and what tradeoffs were made in selection of these goals against other possible alternatives become evaluation questions of concern equal to the question of whether the goals promised were the ones delivered.

Special programs, in this case educational programs for the gifted and talented, pose special problems in evaluation to determine accountability. Accountability is integrally tied up with evaluation in the need for obtaining trustworthy data that prompts agreement on the reality it represents. Thus the resolution of central issues in evaluation and accountability is a critical consideration in the long range funding of programs for the gifted and talented.

This paper examines three issues and suggests guidelines for their resolution by the program planning and funding agencies. The three areas of issues in evaluation are:

1) What are appropriate frameworks for field evaluation as they relate to special educational programs?

2) What approach to evaluation methodology is comprehensive and recognizes the necessity for several levels of evaluation?

3) What role might granting agencies serve in rendering more intelligible the relationship between broad areas of accountability and the evaluation research that makes accountability a valuable and generally accepted constituent of every program?

A Framework for Field Evaluation of Special Programs

Special programs present particular evaluation problems inasmuch as they are often innovative and developed within field settings as opposed to a more controlled environment. Neither of these conditions preclude the use of an evaluative research, but they set forth methodological problems for program administrators, project evaluators and granting agencies, which, if not reconciled, are a continuous source of antagonisms which seed conflict and interfere with efficient program functioning.

Programs which are established under the rubric innovation often lack specific definable objectives that are deemed necessary in evaluation research. Thus if the evaluator or granting agencies insist on ready made specific objectives which serve as the instant source of criterion measurements for the worth of a program, innovation becomes sacrificed to meeting this demand, or a climate of duplicity between program developers and evaluators prevails. Therefore, field programs dubbed innovative must have the option of evolving further objectives and clarifying initial objectives as experience sheds light on new educational processes and dispels previous assumptions of the program staff.

These more flexible program requirements make demands on evaluators to help clarify objectives and trace their evolution as well as to design evaluation of objectives stated at the beginning of a project. In this respect the framework of a field evaluation differs most radically from a laboratory research project with comparatively fixed goals and the researcher's task to prove or disprove previously hypothesized relationships.

In most innovative programs the state of knowledge permits some conjectures on relationships; however, the specification of variables and their relationships is usually not possible with any degree of precision. Thus the program evaluator must recognize these differences (which are discussed at greater length under the heading of differential evaluation) and must use a conceptual scheme to select appropriate evaluative procedures and to guide the collection and analysis of data.

As suggested below, this means placing the program along a continuum determined largely by the degree of formalized objectives that specify the relationship of variables and the clarity of these relationships, the interaction of theoretical constructs, and operational descriptions.

Table 1 presents a continuum with these three points designated. On the continuum three models are described: the initiatory model, the developmental model, and the integrated model. In the initiatory model the planning of goals, specifications and operations are the major processes. In the developmental model the actual construction and testing of a program in a field operation are the chief characteristics. In the integrated model the program is clear on its goals, can predict with reasonable accuracy the outcomes

and generates evaluation data for internal adjustments. These are defined in Table 1 and a sample description is given of a program at each model stage.

An evaluator can be useful at any of these stages, but he will need to frame his evaluation questions and methodology in recognition of the stage of the program model.

Differential Evaluation

Once the various models are recognized as being distinct phases in program development the evaluation designs needed to collect and compare data can be drawn. As the descriptions in Table 1 indicate the evaluation while important at each stage does present different issues and subsequently shifting demands on the evaluation design. In the initiatory model, an evaluator would be more concerned with analyzing the functioning of the committee and making recommendations for their future work than gathering data on the tentative paper program.

Some representative and specific questions which an evaluator would raise are shown in Table 2. Recognizing the varying emphases and demands on evaluation and linking it to a model of program development calls for differential evaluation rather than the application of a standard set of tools to a situation. In a similar view the focus of the accountability will shift with the data under consideration. Table 2 carries an example of differential evaluation executed along the three dimensions of effort, effect, and efficiency in the program model. Table 2 should be read in conjunction with Table 1 for the evaluation questions are drawn from the descriptions of the programs. The evaluation questions on each of the three dimensions of effort, effect, and efficiency should elicit data which when put together begins to give a coherent picture of the model, its main constructs and its functioning. Note that one question by itself is not decisive but together the questions combine to allow an evaluator to make comparisons and decision-makers to judge accountability.

Each dimension of evaluation has some common characteristics, but seeks different data given the stage of the program model. As an example, within the dimension of effort, the evaluator should know how time is spent, since time is one of the costly ingredients in program development. How the staff spends time on areas which relate directly to delivery of services and concentrating program effects is an especially critical question in the developmental and integrated models.

The determination of the program's effect has been the primary concern in evaluation and research. Product evaluation has usually concerned itself with effects, but as the reader will note the initiatory model does not have a product emerging from the intended clients of the program. Therefore the questions in the initiatory model call forth data on the process of model development, and there are few outcomes from the model to study. As the program model moves further toward becoming an integrated, fully developed model the emphasis on evaluation of products and other outputs of the model increase. In the evaluation of an integrated model the attainment of goals and their congruence with original goal formulations, the most conventional definition of accountability is more closely followed. Equally important is the attribution of effects to specific program components and activities.

In order for these relationships to be ascribed, it is necessary to delineate a program model and be able to guarantee a degree of consistency of functioning. These control factors are usually achieved in the developmental model where the definition and description of the main constructs are distilled from the experience of operating the model and observing results. Without the specification, consistency of functioning and agreement on the reality of the basic constructs, attribution of effects to the model's specific functioning is largely speculative. For example, in the developmental model described in Table 1, the improvisation of program by teachers rules out the study of specific instructional treatments of gifted children. If an original objective is to explore student aptitude and instructional treatment interactions on achievement, this is precluded until the developmental model defines and stabilizes the teaching, recognizing of course the need for other routine controls as well.

Because field settings lack controls which are available within a laboratory, a program produces unanticipated effects. These may be obvious or subtle, and the staff through their long association with the program may accept them without awareness of how they have redirected the original aims of the program. In one instance outside evaluation of a program for learning centers for remedial work in elementary schools found the students had over a period of time rearranged their schedules to spend more time in self programmed activities in learning centers than in any other single classroom subject. While one may applaud this management of instruction, a study of students' records found that students were not using the learning centers as they were designed for remedial work in areas of greatest weakness. Over time the program had been diverted from its original goal of providing special assistance in areas where students needed extra academic work to one where students pursued immediate interests. Hence the evaluator will need to study unanticipated effects as well as direct effects in relating outcomes to intended goals.

Efficiency relates the efforts and resources committed to the effects achieved. Usually these are recorded in some cost-benefit statements. Again, as in the other two dimensions, the focus of the evaluator and the data collected will be related to the stage of the program model. In the initiatory model the emphasis will be on process data as the developmental model or integrated model is planned. As the model becomes operationalized, the evaluation for efficiency shifts towards assessing the relationships of effort and effect as they are reflected in the models output, in this case the delivery of an educational program to talented and gifted students.

Evaluation is frequently defined as a fair comparison, and within each dimension the data is eventually compared with other data for a basis of judgment. Sometimes the comparisons are made of the same groups over time, much as one might compare his own income tax returns to chart his economic progress over a period of years. The other usual evaluation procedure is to compare one group with another group. Staying with the individual income tax analogy, one might compare his income to a group of people with similar educational attainment, place of residence or occupational status. In the example in Table 2, the program is compared with other programs within the school district and with similar programs in other school districts.

In the development of new programs in education, integrated models are rare. Typically federal funding for innovation has been to stimulate initiatory or developmental models. Funding often terminated before the intergrated models were produced. Development has suffered further from the failure to distinguish between these three models. As a consequence the evaluation designs have subjected initiatory and developmental models to accountability demands that were appropriate for integrated models. What were thus deemed deficiencies by the evaluation data may only have been developmental growing pains as the models were not

at stage where the effects as a product outcomes were ready to be assessed.

Under this plan of recognizing and allowing for stages in educational program models, the evaluation designs for insuring accountability will assume forms associated with the present stage of the educational model and not rely on only one data category, product outcomes, to assess all program models. Accountability thus becomes at the initiatory stage a formulating and carrying out of an evaluation design which lays bare the process and progress of the planning venture and permits a degree of comparison with other similar efforts. The client for evaluation finding at this stage is the body doing the model building. At the developmental stage accountability is assisted through an evaluation design that continues its emphasis on the individuals responsible for building and operating the model but also collects data on the program model's operation. In the integrative model accountability shifts heavily to data which will give an assessment of the outcomes of the program as compared with original intents and other similar programs. The emphasis of each of the dimensions and foci of differential evaluation is the relating of evaluation design and emphasis to program models.

In the light of past confusion on the function of evaluation and its relationship to accountability the above conceptualization can be constructive. A list of guidelines which would assist funding agencies in orienting program developers and also extend the usefulness of accountability to both the funder and the funded follows.

Evaluation Guidelines and Funding Agencies

1) Innovative program proposals should designate the type(s) of models they will fashion. If they are using an initiatory model they should be required to construct a time sequence for advancing to a developmental model and to an integrated model. In special programs for the gifted, some proposals can bypass the initiatory model and proceed to a developmental model through utilizing available data on extant programs as a basis for construction of a model.

2) Program proposals should relate the three dimensions of evaluation, effort, effect, and efficiency to the program model. The evaluation design should reflect the dominant characteristics of the program model. This means that the requirement of accountability gives recognition to the need for different emphases in the evaluation design. In the initiatory model the three dimensions of evaluation focus primarily on the organizational structure as the data source and the client. The evaluation data should assist in improved formulation and increased effectiveness in model building. In the developmental stage the focus of the evaluation design shifts more to the program model, and its clients, the students and product outcomes become of greater concern. In the integrated model, the evaluation design centers on the model as a defined program. Selected from a range of alternatives it is judged on how well it attains its professed goals and how it compares with other programs. Special program proposals for the talented and gifted will contain appropriate comparison procedures and relate costs to benefits.

3) Program model proposals will contain a comprehensive design for evaluation and relate this design to accountability. The evaluation designs will become a functioning part of the program model and render data on performance to decision makers within the first year of functioning. The evaluation design should parallel the program model design on a time line, reflecting the changes in the model and the corresponding demand for different evaluative data. Models for programs for the gifted and talented would use a variety of measures in assessing cognitive, affective and context changes in the students and organization.

4) The evaluation design should render data that will aid decision makers at the several levels. As an integral part of the functioning program model, the data should assist the active participants in the model as well as those who sit as gatekeepers on resources that give sanction to the program. Therefore, in carrying out the evaluation designs there will be an interplay between the evaluator and the program model participants as well as between the evaluator and the gatekeeper. This transactional use of evaluation will aid in developing evaluation skills in program participants, encourage widespread use of evaluative data, and assist the evaluator in grounding his design in the reality context of the project.

5) Since transactional evaluation involves a close association of evaluator and evaluated, provision for outside evaluators to assist with perspective should be made. The program proposal should make provision for an inside evaluator and establish some criteria for selection of an outside evaluator. Of primary concern is the relating of evaluation and accountability for the program model in a continuous fashion – directing it always to clarifying and improving the alternatives in the educational programs for the special target population, in this case gifted and talented children.

Accountability can not be divorced from evaluation and will be moved from the area of subjective judgment to the extent that appropriate evaluation methodology is brought to bear. Suspicion of evaluation surfaces where data is remote from direct usefulness to the practioner and becomes viewed as a coercive weapon to structure behavior. However, decision makers at all levels need accurate evaluation to form judgments whether gatekeepers or field practioners. Differential evaluation geared to a series of models of program development assists in resolving some of the issues that detract evaluation from playing a more viable role at several levels of decision making in the search for improved educational programs, which is the goal of all those who demand accountability. With the application of appropriate evaluation procedures as suggested in this paper, accountability can be rendered more directly as evaluation becomes more useful to all participants, be they school boards, professional practitioners or the recipients of an educational program.

Table 1

Three Le[illegible]ls of Program Models in Special Programs for Gifted and Talented

INITIATORY MODELS	*DEVELOPMENTAL MODELS*	*INTEGRATED MODELS*
Models are vague, intuitive in effects to be achieved. Objectives are stated as general outcomes and social goods to be achieved. There is much concern with theory, the debates on alternatives are theoretical rather than operational or data based. Justification of the program may be drawn from analogous programs in other contexts or be based on philosophical assumptions. Details for operationalizing the proposal are sketchy.	Models, where a mixture of objectives prevails. Macro objectives give general guidance and some micro objectives are defined. Objectives still seem to be shifting and the model still takes different forms in individual staffs' descriptions. There is more concern with operational alternatives than a given alternative. While the program is operating there are many unknowns and frequently considerable improvisation.	Models have specific objectives to be achieved. There is monitoring of procedures for consistency of operation. Relationships of treatment (what is done educally) and effects (outcomes) are specified, and reproducibility is enhanced by elaborated descriptions of the model in operation. Logical relationships are explicated, and empirical data are being collected. The outcomes are being assessed and the range of effects are capable of being attributed to the program treatment.
Precis of a Program A special program for gifted and talented children is drawn up. Decisions on the form it will take; special classes, enrichment, independent tutorials or the mix of these are still open. There is lack of agreement on definition of clients. Who is a gifted or talented student? How should he be educated? Should he be identified? At what grade? By whom? Will there be extra monies allocated to the education of these students? Will there be a need to establish a separate administrative unit for this program? What type of research will be conducted on a program? When will parents be involved? A committee has been set up to resolve some of these issues. Administrative responsibilities and a sum of money for planning have been allocated. The committee has been meeting for one year, a set of minutes, a list of consultants and a description of the field trips to visit programs for gifted children exists.	*Precis of a Program* One special program for gifted and talented children has been underway two years. Fifty children are involved. In some cases teachers nominate students for the program, in others they are selected on the basis of test scores. The first year students spend four hours per week in the program, the second year this has been extended to six. The program has focused on scientific interests though there is concern about including more humanities. One teacher made arrangements for 25 of the students to see the Old Vic perform at the local college. Some data, mostly of a descriptive nature has been collected on the students, their achievements and the program. Teachers do not have fixed style for instruction, the instruction reflects personal teaching style.	*Precis of a Program* A program for gifted and talented students has been in operation for five years. Open-ended instruction is featured with teachers and students cooperatively planning the curriculum for three months at a time. The Director of Research for the school district monitors the program through teachers' records, student interviews and regular classroom visitations. Program outcomes are investigated through their effect on student's achievement and interest. A contrast group of students, not in a special program, in a neighboring school district with a similar student body is supplying comparable data on achievement and interest. A further dimension of the study supplies data on special programs' influence on the regular program. At the end of the five years a summer workshop composed of teachers and pupils in the program in conjunction with administrators and university consultants will draw up the program description for the next three years. Decisions will be rendered on the program organization, the selection and retention of students and the research to be conducted.

Table 2

Differential Evaluation in Three Program Models

INITIATORY MODEL	*DEVELOPMENTAL MODEL*	*INTEGRATED MODEL*
	EFFORT	
1) What have been the main directions of the committee's efforts? 2) What has been the level of participation among the committee members? 3) Has the committee broadened its constituency and recognized the socio-political aspects of its efforts? 4) How much time has been spent on certain phases of the program?	1) What have been the main thrusts of the program's efforts? 2) What objectives have received the major attention? 3) Who has been involved in the program, to what extent, voluntary or mandated, volunteer or paid? 4) Where has the support for the program emanated; what has been the total developmental costs - financial and psychic? 5) How much total time has been spent? What parts of the program are consuming the bulk of time?	1) What are the major goals the program is trying to attain? Who is involved in the effort? 2) What percentage of staff and student time is committed to the program? Total time? 3) What data are available that permit building a history of the effort and projecting a scenario for future thrusts? 4) What areas of effort are perceived as worth while by the different role participants?
	EFFECT	
1) What is the level of knowledge manifested in the committee on special programs for the gifted and talented? 2) Are the committee members conversant with issues, trends and programs? 3) What is the present stage of the plans, are they near operationalizing? 4) What are the main impediments to formulating a developmental model program?	1) What data on functioning of the program have been collected or can be collected? 2) What have the effects been on program students, other students, teachers, parents and adminstrators? 3) Has the data on effects been used to modify or shape the program, explore alternatives? 4) Can the effects on students be attributable to the program? 5) Have there been any unanticipated effects?	1) What are the programs short range effects on students to the program, students not in the program, teachers, parents and administrators? Are data available to study both process and product effects? 2) Is any provision made for studying long range effects? 3) Can the desired effects stated in the original goals be attributed to the program? 4) Have there been any unanticipated effects?
	EFFICIENCY	
1) Does the committee have an organized plan for carrying out its work, with deadlines and completion schedules for phases of activities? 2) Is the committee clear on its responsibility to the Board of Education and superintendent? 3) Given the amount of time and money invested has a useful product emerged? How far are they from an operating program?	1) Are there records or other evidence that program problems are being systematically encountered and resolved? 2) How does the cost on this program compare with costs on other programs in the district and in other districts? 3) What goals seem within attainment? What goals have not been attained? 4) Given the program's experience, what will be the approximate cost of an integrated program model?	1) Are problems systematically studied? Are the participants conversant with the decision making process? Has it been scrutinized? 2) What is the cost of this program compared with other programs in the district and similar programs? 3) How do these costs project out for the future now that developmental costs are large-met? 4) What has been the cost of attaining certain effects, what tradeoffs were made in the interest of cost?

KEY FEATURES:
A PRACTICAL MODEL FOR PROGRAM EVALUATION

by Joseph S. Renzuilli, Associate Professor of Educational Psychology, University of Connecticut; Carolyn M. Callahan, Research Assistant, University of Connecticut; and Francis X. Archambault, Assistant Professor of Educational Psychology, Boston University

Renewed interest in educational evaluation has resulted in the recent development of a variety of new models for assessing the quality of instructional programs. Although many of these models represent significant advances in the science of evaluation, administrators and teachers often find them too complicated for practical application without the help of highly trained specialists.

We propose to describe here an evaluation system that a curriculum director - in fact, any educator interested in conducting a program evaluation - can use as a comprehensive yet easy-to-apply model wherever need may arise for assessment leading to modifications in program organization and operation. We call it the Key Features Model.

Advantages

We believe the Key Features Model has many advantages over others now in common use. To mention only one, the currently popular behavioral objectives model has proved to be appropriate for the assessment of relatively specific student performance, but its emphasis on achievement gains in traditional academic areas limits the kinds of decisions that can be made from the information it supplies. Suppose, for instance, that certain curricular materials or instructional methods are producing teacher discontent, which is having a negative impact on classroom atmosphere and, in turn, on student attitudes and performance. Now, although this teacher discontent may be reflected in the student achievement gains (or lack of them), the behavioral objectives model for evaluation does not provide a mechanism for pinpointing the source of the trouble through direct feedback from the teachers themselves. Thus, an evaluator using the behavioral objectives model may be able to conclude that students are not achieving according to some predetermined expectation, but his data will not help him find out *why* they are not making the expected gains.

The Key Features Model, however, would almost surely disclose the real difficulty (teacher discontent) in our hypothetical case, because it requires the evaluator to investigate *all* the relevant factors bearing directly or indirectly on a particular program's effectiveness. Accordingly, although this model reflects a concern for behavioral objectives and student achievement, it also takes in other important sources of information most helpful for decision making. Let's examine it more closely.

Basic Dimensions

The model's essentials are: Key Features, Prime Interest Groups, and Time. Key Features are major factors or variables that contribute to the success of any educational program. The evaluator using this model must first - before he begins to gather data on the program's effectiveness - determine which factors (key features) influence the program's operation and contribute most to an understanding of it. Making this determination is probably the evaluator's most important task, but he can do it in a relatively short time if he can enlist the help of persons representing various prime interest groups.

Prime Interest Groups consist of people who have some interest, direct or indirect, in the program to be evaluated. Obviously, such groups will almost always include students, teachers, and parents; but, depending on the nature of the program, they may also involve college admissions officers, prospective employers, and members of boards of education, state departments of education, and certification and funding agencies. One simple way to identify prime interest groups is merely to look at the program's general objectives and ask, "What groups are directly involved in this program or are interested in the students who will be completing it?" If, for example, it's a vocational education program, prime interest groups might include representives of companies that may employ graduates of the program, members of appropriate trade unions, and persons from agencies responsible for examining or certifying skills taught in the program.

Identifying Key Features

The first step here is to ferret out the major concerns of each prime interest group. It's quite likely that all of the groups will share some of the same concerns, but each one will also have its unique interests. For example, parents, teachers, administrators, and board members would surely be interested in the levels of student achievement under a new social studies program, but administrators and board members would have, in addition, a particular concern about program expenses as these relate to the district budget. For their part, teachers would be interested in how much extra preparation time the new program may require and students might wonder how much emphasis on current social issues it contains. Thus, it's basic to identify the real, relevant concerns of each interest group and to build the data-gathering effort around them.

The evaluator can identify key features by compiling "input" information from four main sources: written materials, questionnaires, interviews, and observation. He should first review all such documents as proposals, courses of study, previous evaluations, curricular materials, etc., and try to learn as much as he can about the general and specific objectives of the program and its mode of operation.

As a second source, he may use open-ended questionnaires that ask a small sample of each prime interest group to list their main concerns about the program. A good approach is simply to ask what each one would "look at" if he were evaluating the program. Whenever possible, questionnaires should be kept anonymous, and the instructions for completing them should make it clear that no attempt will be made to identify suppliers of information.

After he has reviewed program documents and the questionnaires, the evaluator will begin to get a "feel" for both the obvious and the subtle concerns of the various prime interest groups. Then he can proceed to the third step: arranging interviews with members of each group. Knowledge gained in the first two steps will help him ask meaningful questions about concerns expressed frequently. His success here, of course, will depend on how well he's able to gain the trust of his interviewees. He should guarantee their anonymity and make sure they understand his role as spokesman or ombudsman for those being served by the program.

Finally the evaluator should observe the program in action, try to "get inside" it by viewing it from the perspectives of stu-

dents, teachers, and members of other prime interest groups. Informal interviews and friendly chats will help him understand the day-to-day operation of the program and clarify or verify some of the concerns identified through previous input procedures.

At this point, the evaluator should be able to list the major concerns of each prime interest group. He should now classify these and list each category along the Key Features dimension of the evaluation model. Similarly, along the Prime Interest Groups dimension he should list all those in any way concerned with the program, placing a check mark in each box that represents a possible source of evaluative data. For example, if both students and parents can contribute information on say, "Student Attitudes Toward the Program", the evaluator should make check marks in the boxes where this key feature and each of these two prime interest groups intersect.

The advantage of listing all possible sources of data is that it creates an awareness of the various perspectives from which a program can be evaluated (Gooler, 1969). (Later, the evaluator can review the entire range of possibilities and select those he feels will contribute the most useful information.) Furthermore, the comprehensive overview will help the evaluator to avoid overburdening any one group with requests for evaluative data.

Appropriate Instruments

After identification of data sources for each key feature, the evaluator's next step is to select and construct instruments that will "deliver" the information required for decision making. The type of instrument used to evaluate a given program may cut across measures of cognitive growth, affective growth, and classroom atmosphere, and may range from formal standardized tests to informal interview schedules. Careful selection and development of instruments for each key feature, data source, and time of administration are essential to an accurate, comprehensive evaluation. It's at this point that the evaluator must begin to translate previously obtained data into appropriate instrumentation.

What instruments are available? For measuring cognitive abilities, there are standardized achievement tests, tests of critical thinking, aptitude tests, and tests of problem-solving ability. There are fewer standardized tests for areas in the affective domain, but some rating scales and personality tests may be applicable in certain instances. Classroom atmosphere can be evaluated by use of such instruments as the *Class Activities Questionnaire* (Steele, 1969), the *Observation Schedule and Record* (Medley and Metzel, 1958), and Flanders' interaction analysis procedures (1960). There are also standardized tests of creative thinking such as the *Torrance Tests of Creative Thinking* (1966) and the *Remote Associates Test* (Mednick, 1967), as well as tests of artistic aptitude like the the *Design Judgment Test* (Graves, 1948).

Nonstandardized tests, rating scales, questionnaires, interview schedules, and observation techniques are often included in the assessment of objectives for which no standardized measures exist. In constructing questionnaires and rating scales, the evaluator should try to take into account the concerns expressed by each prime interest group during the input phase. His major task here is to give accurate representation to each concern on one or more of the questionnaire items, and to determine the extent to which this concern exists within a large representative sample of each prime interest group.

Existing school records may influence selection of some instruments. For instance, if the evaluation design calls for standardized measurement of reading achievement and the school has already administered a particular achievement test in reading, it's reasonable to use those test scores as pretest data - provided, of course, the test accurately reflects the objectives of the program under evaluation.

Special caution has to be exercised in using evaluation measures for programs serving exceptional children. Tests standardized on homogeneous groups may be inappropriate for special populations. If used, they may generate such problems as regression to the mean, which would have to be considered in the evaluation. Other difficulties arise from using achievement and aptitude tests to measure the typically higher-level objectives and the unique learning experiences of gifted or creative pupils as well as the specialized objectives of slow learners or mentally retarded children. Standardized tests often fail to yield valid measures of growth at these extremes. Consequently, it may be necessary to seek out special instruments or to rely on carefully constructed teacher-made tests in such cases.

The Time Dimension

The third dimension of this model is a key to the best utilization of the evaluator's time and to the optimal functioning of the overall evaluation system. Traditional models, including the above-mentioned behavioral objectives model, rely heavily on the classical pretest/posttest design. A more effective model will incorporate both formative and summative evaluation - i.e., pretest and posttest data will be gathered and analyzed, but data collection will also occur at interim points *during* the program's operation. This helps to detect adverse situations or practices before the final collection of posttest data. A particular program, for example, might require busing students from one school to another, and this might cause emotional problems in youngsters thus separated from familiar surroundings and deprived of after-school playtime. Questionnaires and/or interviews with students and parents early in the program's operation would yield feedback helpful in identifying the problem *before* collection and analysis of posttest information. It goes without saying, nevertheless, that pretest and posttest data are essential to the final or summative evaluation of any program.

Completion of the time dimension of the model will provide a year-long plan that will help the evaluator gather specified data at appropriate intervals. He should prepare a separate matrix for each month of the program's operation and indicate on it the kind of data to be gathered during that month.

In filling out the cells on a given matrix, the evaluator should consider whether or not *this* prime interest group can supply appropriate information about *this* key feature at *this* time. For example, an evaluator of a workstudy program who calls for executives of the employing firms to return a questionnaire every month is almost sure to find it difficult, if not impossible, to gather data from this source. In fact, such procedures may alienate a prime interest group to the point of endangering a program's success. Similarly, over-testing of students may produce a reaction that would make meaningful interpretation of test results impossible. And overall, it sometimes happens that negative feelings about evaluation are easily projected onto the program itself.

Analyzing and Synthesizing Findings

After he has set up his evaluation model, the evaluator's responsibility centers on analyzing each set of data, on synthesizing the data about each key feature, and on providing administrators and staff with feedback. Appropriate methods of data analysis include descriptive and enumerative statistics (percentages, means, standard deviations, grade scores, etc.) as well as parametric and nonparametric statistical tests calling attention to significant differences between various sets of data. The evaluator should keep in mind the various levels of sophistication among the persons to whom he's reporting and present

the data in ways everyone can understand. Whenever possible, statistical information should be given in tabular, graphic, and narrative forms, and every effort should be made to simplify the interpretation of complicated statistical findings.

A valuable but often neglected form of evaluative reporting is the presentation of oral or written comments from persons responding to interviews and questionnaires. Such comments should be analyzed for frequency and general trends, then summarized in the evaluation reports. Sometimes it's effective to include verbatim statements that typify the thoughts and feelings of particular groups.

The Key Features Model is designed to facilitate the process of synthesizing evaluative data and disseminating information to be used in decision making. The evaluator builds his reports, both formative and summative, around each key feature, and attempts to show how information from each prime interest group has led to a given conclusion and recommendation. He emphasizes points of agreement and disagreement among the groups and provides a rationale for each of his recommendations. Whenever possible, he lists alternative courses of action that range from the ideal to the most practical and easy. Finally, he makes sure that his report includes realistic recommendations (as measured against available funds and other resources) for immediate implementation as well as suggestions for long-range development of an ideal program.

If, then, as someone has said, "evaluation is the art of collecting information for the purpose of rational decision making," we believe the Key Features Model gives the educator a simple but comprehensive instrument for the practical exercise of this art.

ACTION: Educators used the Key Features Model in an assessment of a program providing Connecticut inner-city students with opportunities to live and study on the campuses of private preparatory schools.

Background:

Approximately 800 Hartford boys and girls (grades four through twelve) are participating in the Supplementary Program for Hartford in Education Reinforcement and Enrichment (SPHERE). During the summer months, twelve independent schools in the state provide boarding and day school programs of academic study for SPHERE participants, and a follow-up center in Hartford offers them continuous assistance throughout the school year.

A major program objective is to help students take greater advantage of regular school offerings. To this end, student and faculty volunteers from the private schools conduct tutoring and group teaching sessions for the inner-city youngsters.

Implementation:

Among the key features identified by the program evaluators were growth in academic achievement, growth in study skills, growth in self-concept, attitudes toward pursuing a higher education, and attitudes toward various aspects of the preparatory program.

Information was obtained from students by means of a comprehensive questionnaire, and further data were supplied by parents, teachers, and directors of the twelve participating schools. The input process resulted in identification of several key features of common concern to all of these prime interest groups - e.g., student selection procedures, parental involvement , communication with the students' regular schools, personnel training and commitment, adequacy of follow-up services, resources and facilities, and program objectives. Evaluators collected data both during the summer sessions and at various times throughout the follow-up phase of the program.

The final evaluation report contains a summary of findings for each of the SPHERE schools, plus recommendations relating to each of the key features of the program.

Reference:

Rev. David Kern, Executive Director, SPHERE, 47 Vine St., Hartford, Conn. 06112.

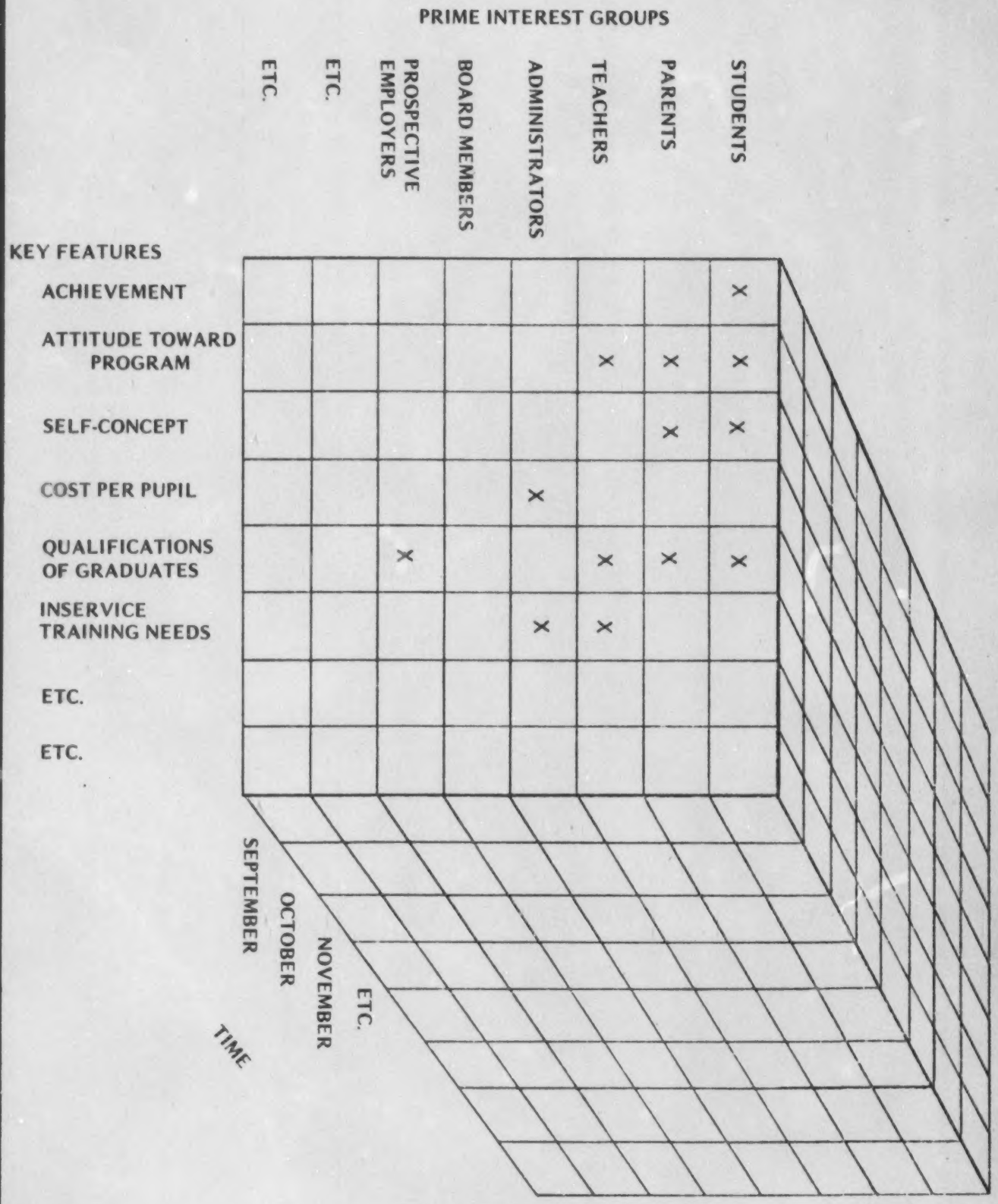
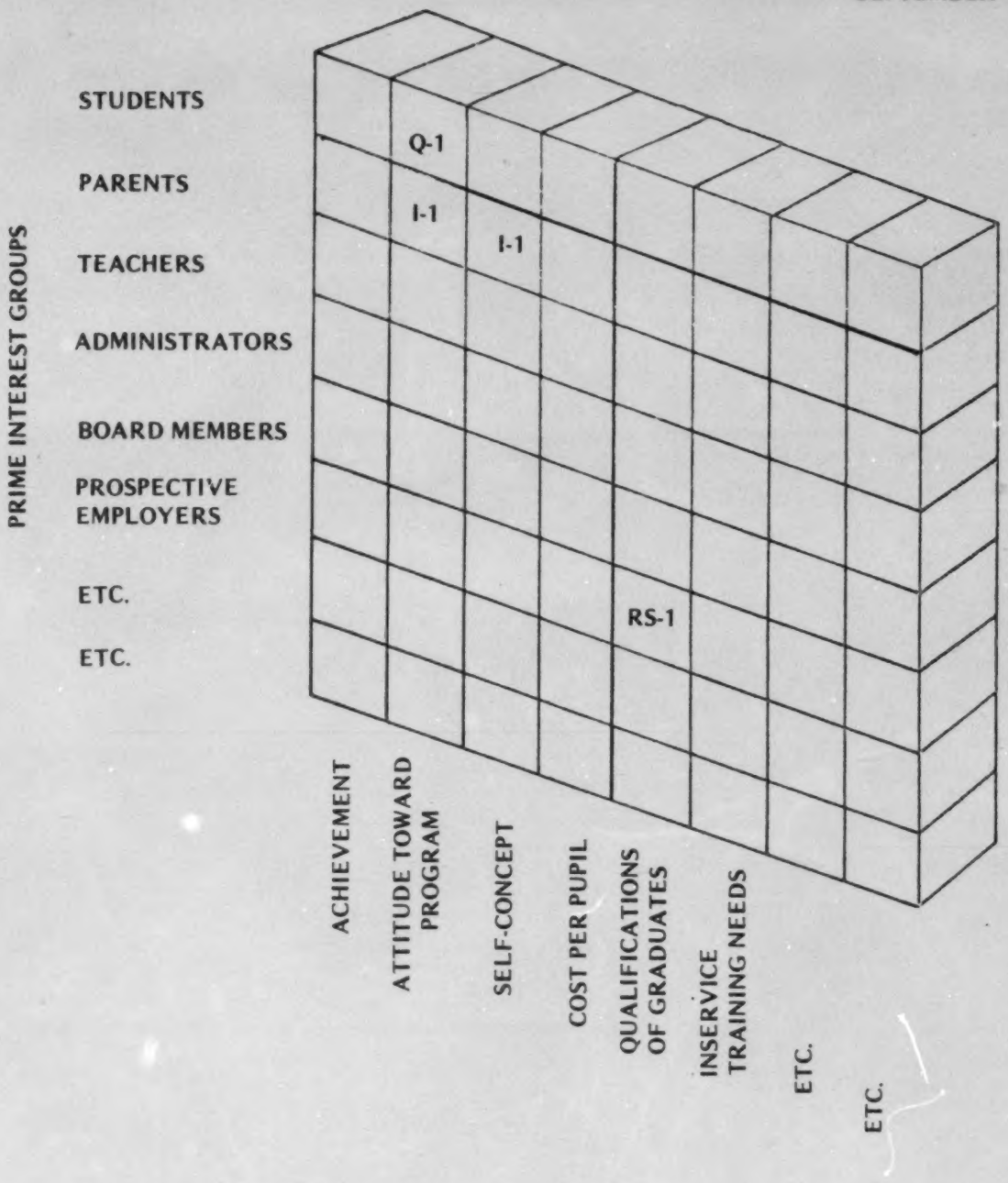

PRIME INTEREST GROUPS
STUDENTS
PARENTS
TEACHERS
ADMINISTRATORS
BOARD MEMBERS
PROSPECTIVE EMPLOYERS
ETC.
ETC.
KEY FEATURES
ACHIEVEMENT
ATTITUDE TOWARD PROGRAM
SELF-CONCEPT
COST PER PUPIL
QUALIFICATIONS OF GRADUATES
INSERVICE TRAINING NEEDS
ETC.
ETC.
TIME
SEPTEMBER
OCTOBER
NOVEMBER
ETC.

FIGURE 1



KEY:
ACH-1 indicates an achievement pretest
Q-1 indicates the first questionnaire.
RS-1 indicates the first rating scale.
I-1 indicates the first interview.

FIGURE 2

A STATE PLAN FOR THE EDUCATION OF THE GIFTED AND TALENTED

Section I

Overview

Connecticut has been concerned with the problems of the Gifted and/or Talented since 1955, when John Hersey served as chairman of the initial study committee on the gifted and talented in Connecticut which made a report to the Connecticut State Board of Education. According to him, "Our uncertainty about exactly how to develop talent is only part of the greatest unsolved problems in American education - the problem of how to help every child realize his or her maximum potential."

The Connecticut State Plan activates the findings of both the White House Task Force Report on the Gifted and Talented of 1968 and the U. S. Commissioner's Report of 1971 by providing the three major components to implement a state-wide program for the gifted and talented. The Department provides: 1) a full-time consultative position in the Bureau of Pupil Personnel and Special Educational Services to assist LEA's in designing and developing special education programs for such children and youth; 2) a state statute to provide two-thirds excess cost reimbursements to LEA's for such programs and 3) professional development programs to train professional personnel through college and university graduate programs and in-service training provided by the Department. Equal opportunities for all children and youth is the Department's basic educational position; equal opportunities for those with special needs, including the gifted and talented, is a top priority with the Department.

Position Statement

The Department of Education recognizes the needs of all children and youth being served by its 164 school districts and assists them in developing educational programs which provide maximum opportunities for all children and youth to fulfill their capabilities.

The Department of Education recognizes that many children and youth in Connecticut have special needs which cannot be met in general education, but which can be provided through special programs and/or services. These special programs and/or services are needed by many types of exceptional children and youth ranging from the severely handicapped to the highly gifted and talented.

Connecticut's legislation, Section 10-76 (a-j) of the Connecticut General Statues, reflects its commitment to all children and youth requiring special education. Equal opportunities for all children and youth with special education needs are provided for under this statute. The gifted and/or talented in Connecticut are those possessing extraordinary learning ability and outstanding talent in the creative arts. These two definitions include both demonstrated and potential ability and talent and include differentiated experiences and activities for those who have very superior demonstrated ability, the potential to gain such ability, bright underachievers, high creative producers, outstanding talent in music, the visual and the performing arts.

It is the Department's position that these children and youth are found in every school district regardless of age-groups, ethnic groups, socioeconomic conditions and geographical environments. The gifted and talented know none of these barriers and they possess the demonstrated and potential ability to become the future leaders of Connecticut and America as a whole.

Section II

Assessment of Needs

Historical Perspective

The Bureau of Pupil Personnal and Special Educational Services of the Department of Education conducted its initial survey of the LEA's in Connecticut in 1966-67. This survey indicated that only four of the then existing 169 LEA's had formed programs for the gifted and talented. It also indicated that less than 500 gifted and talented children and youth were being provided with an organized program for the gifted and talented.

Based on an incidence of 10% of the public school population of 600,000, this meant that the needs of approximately 60,000 of such children and youth were not being served in our public elementary and secondary schools throughout the state.

Since 1967, the Bureau has undertaken an annual survey of the needs of the gifted and talented throughout Connecticut. The survey usually attempts to ascertain the numbers of such children and youth being served; the numbers of programs in the LEA's; the number of professional and paraprofessional personnel involved with the gifted and talented; the number of professional personnel being trained through our graduate training programs.

Since 1967, the number of approved programs has increased from four to 80, serving approximately 5,200 out of 600,000 students (1974), or 1/12 of the school population. Based on current projections Connecticut with its existing *permissive* legislation could be serving approximately 12,000 of these students by the end of 1980 which would be 1/16 of the population. This projection is based on the same rate of growth the programs enjoyed between 1967 and 1974.

Section III

1. Goals and Objectives

Introduction

The goal of the Connecticut State Board of Education with respect to the education of children and youth requiring assistance for their extraordinary learning ability and/or their outstanding talent in the creative arts is that these children and youth be provided with adequate programs and services to meet their special needs.

Most of the goals and objectives of this plan derived directly from Sections 10-76a through j of the General Statues.

With some exceptions "goals" and "objectives" are stated as anticipated activities of LEA's; "Strategies" are stated as anticipated activities of the State Board of Education to enable LEA's to achieve their goals and objectives.

These goals, objectives and strategies are not stated in terms of behavioral objectives for either children or professional staff; their achievements would certainly make a strong impact on professional activities and on the education of Gifted and/or Talented.

II. Procedures

The total picture of the education of the gifted and/or talented was studied by various means including a survey of all LEA's; a random stratified sample of all professional personnel in special education and pupil personnel positions; a survey of colleges and universities involved in teacher preparation; interviews with parents, lay and professional groups working with the gifted and/or talented; a random sample survey of instructional staff in the LEA's; and a needs assessment survey conducted through two regional meetings on the gifted and talented.

After the identification of the goals, objectives were formulated in terms of what LEA's would do in order to attain the goals. Finally, strategies were developed. Strategies are those activities undertaken by the State Department of Education *to enable the LEA's* to achieve the objectives set for them as stepping stones toward the ultimate achievement of the major goals.

Reactions were sought from the following:

1. The Connecticut Association for the Gifted
2. State Federation of the Council for Exceptional Children
3. State Advisory Council on Special Education
4. The State Advisory Committee on Professional Development in Special Education
5. State Task Force on Gifted and/or Talented
6. All Local Programs for the Gifted and Talented

III. Goals, Objectives and Strategies

Goal No. 1 THE GENERAL ASSEMBLY, THROUGH ITS JOINT STANDING COMMITTEE ON EDUCATION, KEEPS ITSELF CONTINUALLY
2 76 thru 6 80 INFORMED ON THE CONDITION, PROGRESS AND NEEDS OF PROGRAMS FOR THE GIFTED AND TALENTED IN CONNECTICUT AND TAKES APPROPRIATE LEGISLATIVE ACTION TO PROMOTE, SUPPORT AND IMPROVE THE EDUCATION OF SUCH CHILDREN AND YOUTH.

Objective No. 1 The General Assembly, through its Joint Standing Committee on Education, annually
3 76 receives and reviews a comprehensive report from the State Board of Education describing the educational status, needs and recommendations relating to the improvement of the education of the gifted and talented in Connecticut.

STRATEGIES: the State Board of Education shall:

1. make an annual comprehensive report of the
2 76 thru 2 80 status and needs of the education of the gifted and talented in Connecticut to the Joint Standing Committee on Education of the General Assembly and annually reviews said report with said committee or appointed sub-committee.
2. encourage the Joint Standing Committee on Edu-
2 76 thru 2 80 cation to introduce into the General Assembly legislation conducive to the improvement of education for the gifted and talented in Connecticut.

Goal No. 2 EACH CONNECTICUT LEA PROVIDES APPROPRIATE SPECIAL PROGRAMS AND SER-
9 80 VICES FOR ALL CHILDREN AND YOUTH POSSESSING EXTRAORDINARY LEARNING ABILITIES AND/OR OUTSTANDING TALENT IN THE CREATIVE ARTS

Objective No. 1 Each Connecticut LEA submit a plan to the State Board of Education detailing the following:

9–78
a. methods to be followed for locating children and youth who may possibly be identified as being Gifted and/or Talented, along with methods and procedures for positive identification and the criteria for eligibility.
b. the current extent of provisions for the gifted and talented by the LEA.
c. the need for:
   (1) Instructional and ancillary staff.
   (2) Facilities, equipment and materials.
   (3) Transportation.
   (4) Special Consultative Services.
   (5) "Out of School" placement.
d. the procedures to be used in planning and providing differentiated programs and/or services to the gifted and talented.
e. the schedule and means by which the LEA will provide appropriate services and programs to all eligible children.

STRATEGIES: the State Board of Education shall develop and disseminate the following:

1–76 a. Prior approval forms to LEA's.
1–76 b. Appropriate definitions on gifted and/or talented children and youth for whom the LEA's are responsible.
8–76 c. Procedures by which the gifted and/or talented may be identified.
1–77 d. Criteria whereby LEA's shall determine the eligibility of the gifted and talented.
1–76 e. "A Guide to Administrative Regulations, and Policies and Procedures in the Provisions of Differentiated Programs for the Gifted and Talented in Connecticut."
1–76 f. Any plans which may be necessary to assist LEA's in meeting special program needs such as:
   1. new or expanded in-service training programs.
   2. use of non-LEA screening and identification processes.
   3. proposing mandated legislation for the gifted and talented.
   4. designing plans for regional programs for the gifted and talented.
   5. utilizing Regional Educational Centers to provide technical assistance to school districts in their respective areas.
5 76 thru 5 80 g. Reviews, evaluates and informs LEA's as to the acceptance of their prior-approval plans and/or the necessary revisions along with deadlines for submitting them.

9 79 *Objective No. 2 Each LEA completes the implementation of its prior – approved differentiated programs for the gifted and/or talented and reports progress to the State Department of Education at the conclusion of the school year.*

STRATEGIES: the State Board of Education shall:

4 76 a. develop methods to use Regional Educational Centers to assist the Department in collection of data and reviewing progress reports of LEA's in their respective districts.
4 77 b. develop and distribute to each LEA a form(s)

designed to collect data indicating the extent to which LEA's are progressing in the implementation of their prior approved programs.

4–78 c. review progress reports and indicate to each LEA the degree of acceptability of such progress and make specific recommendations.

9–79 *Objective No. 3 Each LEA completes and fully implements its prior approved plan and continues to provide and improve differentiated programs for the gifted and talented.*

STRATEGIES: the State Board of Education:

9–76 a. prepares and distributes to all LEA's a "Guide to In-Service Training for Professional Personnel in the Education of the Gifted and Talented."

9–75 b. assists in the provision of technical assistance, and materials, and equipment necessary for effective in-service training of staff at the LEA level.

9–75 c. organizes and develops structure to involve the Regional Educational Centers in assisting their respective LEA's in providing effective in-service training.

9 80 *Objective No. 4 All LEA's design and develop differentiated curricula and teaching strategies as primary components of their special education programs for the gifted and talented.*

STRATEGIES: the State Board of Education:

9 75 a. prepares and distributes to all LEA's a "Guide to Differentiated Curricula and Strategies for Gifted and Talented Programs."

9 75 b. assists in the provision of technical assistance and differentiated materials and resources necessary for effective differentiated programming at the LEA level. Regional Education Centers will be used to assist in this strategy.

1 76 *Goal No. 4 DEVELOPMENT OF INTER-DISTRICT EDUCATIONAL PROGRAMS.*

9 76 *Objective No. 1 LEA's are to identify target groups of students who could best be served by inter-district programs.*

STRATEGIES: the State Board of Education shall through the Regional Educational Centers:

9 75 a. disseminate information to LEA's describing successful inter-district efforts in Connecticut and other states.

1 76 b. provide technical assistance to LEA's to plan inter-district programs.

Objective No. 2 LEA's to develop and submit plans to the State Board of Education for inter-district programs.

STRATEGIES: the State Board of Education:

4 77 a. develops and distributes criteria describing acceptability of inter-district programs for the gifted and talented.

4 77 b. develops and provides form(s) for use by groups of LEA's in applying for approval and funding of cooperative gifted and talented programs.

2 78 c. reviews and takes action as to approval of inter-district differentiated programs for gifted and talented children and youth.

9–78 *Objective No. 3 LEA's shall implement approved inter-district programs.*

3–79 *Objective No. 4 LEA inter-district units shall evaluate the effectiveness of their programs annually.*

STRATEGIES: the State Board of Education:

1–76 a. encourages applications for funding from LEA's under appropriate legislation, section 10-76e of the general statutes.

1–76 b. encourages LEA's to work through existing Regional Educational Centers for the provision of technical assistance and information relative to criteria for approval and evaluations of such programs.

Section IV

SUMMATION:

A. The five year plan for special education for the gifted and talented was initially drafted in February 1974.

B. The State Board of Education through its Bureau of Pupil Personnel and Special Educational Services began to implement it immediately.

C. The goals, objectives and working strategies are quite comprehensive and will require a tremendous number of work hours before they can be achieved. Steps have been taken to mobilize all professional and lay personnel related to the education of the gifted and talented throughout Connecticut so that these goals might be achieved by the dates indicated.

D. The plan encompasses the three basic concepts of good planning.

1. Position Statement
2. Needs Assessment
3. Goals, Objectives, Strategies

It should be noted that the various key components necessary for a quality state program for the gifted and talented are contained in Section III of the plan. For example, Objective No. 1 and Goal No. 2 require each LEA to submit a *comprehensive plan* for their gifted and talented children and youth. Sequentially through Strategy No. 1, the SEA will provide a delivery system and technical assistance to assist the LEA in achieving this objective.

As the state plan is read you will note the sequential development in this section with:

1. prior approval of LEA programs and plans.
2. screening and identification of pupils.
3. minimum services to such children and youth.
4. in-service training and professional development at graduate level.
5. consideration by LEA's to introduce more promising programs.
6. plans for continuous evaluation.
7. developing and disseminating various guides and information to LEA's for utilization by gifted and talented programs.
8. revising and improving goals, objectives, etc. at LEA and SEA levels.
9. encouraging regional and inter-district program development by groups of LEA's.
10. legislative implications for the General Assembly.
11. encouraging various strategies for change.

CONNECTICUT'S COMPREHENSIVE MODEL FOR THE EDUCATION OF THE GIFTED AND TALENTED

By William G. Vassar

The nation as a whole, but the states individually, must recognize and assume the responsibility of the education of the gifted and talented as an integral part of their total education spectrum. Since each of the fifty states has its own constitution, considerable variations may be found in the state constitutions with respect to education. Some of the provisions are up-to-date and well conceived; others are antiquated and inadequate to the extent of impeding both general and special education programs.

Each state constitution, almost without exception, charges the state legislature with the responsibility, and almost unlimited authority, to establish and control public school programs.

Even after the various state legislatures have provided, within constitutional limits, for the general framework of their state educational systems, they continue to enact, amend and repeal many state laws relating to education during each legislative session.

The great majority of these laws are well conceived and accordingly beneficial to the educational school districts of the respective states. Unfortunately, though, there are many provisions pertaining to education which are poorly conceived, and thereby do not respond to meeting the needs of children and youth. More specifically, there are many state educational statutes which are not "in tune with the times."

In order for state educational statutes to promote and facilitate good educational programming at the local level, they should be enacted and organized in conformity with sound principles of educational legislation. The following general principles should be followed in planning, studying, designing and implementing educational statutes:

1) The laws should be in agreement with the provisions of the state constitution. Disregard for this principle frequently leads to litigation.

2) Even though statutory laws should be more specific than constitutional provisions, they should be general enough to enable state and local boards of education to plan and operate without needless handicaps and restrictions.

3) The statutes should be stated in unmistakably clear terms so as to convey the precise intent of the legislation.

4) The laws should be codified periodically and systematically, eliminating or amending provisions which are obsolete.

Recodification has not taken place as fast as it should; it should serve a significant purpose for state legislatures, state boards and state departments of education to analyze, appraise and update school codes. The cost of recodification is small when compared with the cost of litigation growing out of misunderstanding of antiquated, distorted and vaguely written provisions for the general and special education of a states' children and youth.

HISTORICAL PERSPECTIVE OF CONNECTICUT PROGRAMS FOR THE GIFTED

John Hersey, the noted author, was chairman of a special study committee in 1956 to study the needs of Connecticut's gifted and talented children and youth. The Hersey Committee compiled a comprehensive report of the needs for programs in Connecticut for the gifted and talented. Little or no action was taken on the Roberts Report (the committee report) until 1965-66 when the State Department of Education conducted a nationwide search for a consultant for the gifted and talented to provide leadership for the state and its 169 school districts in making provisions for such children and youth.

Concurrently, in recognition of a need for a review of the statutory provisions and regulations for the education of exceptional children in Connecticut, the State Board of Education arranged for a comprehensive study to be undertaken over a five month period in mid-1966. Dr. R. Daniel Chubbuck, Chairman of the Department of Educational Administration at the University of Bridgeport, was named as the director and principal investigator of this study.

Dr. Chubbuck was charged with undertaking a comprehensive study of existing legislation related to the education of exceptional children (including the handicapped and the educationally gifted and talented) and preparing a report for submission to the State Board of Education no later than Sept. 20, 1966. The report included:

a) An analysis of procedures, policies and problems which existed in relation to this legislation and its contribution to the development of adequate educational programs and services for exceptional children.

b) An analysis of other conditions which existed in the state which affected the efforts of local educational agencies to provide sound programs and services for all exceptional children.

c) A synthesis of the concerns and recommendations of persons within the state interested in exceptional children, including educators, parents, and health, mental health and welfare workers.

d) Recommendations concerning legislative policies and procedures to the State Board of Education designed to facilitate more adequate programs and services for exceptional children in Connecticut.

Dr. Chubbuck incorporated all of these procedures into his study. Orientation, consultation, conference, study of documents, formulation of generalizations, re-examinations, writing, presentation, reevaluation and final crystalization were the steps utilized in the study. Conferences were held with State Department personnel, Council for Exceptional Children staff at the national level, special education personnel from the local level, parents, school administrators, university staff and many other interested people.

The governor called various meetings involving individuals from institutions and organizations interested in exceptional children to consult with the director and review suggestions for legislation.

The Connecticut Legislative Commission was involved for the purpose of sharing the emerging generalizations with them and gaining a view of how the report could be translated into a bill to be presented to the legislature at a later date.

The study did find a number of gaps and overlaps occuring in the existing legislation for exceptional children. Some legislation was mandatory; others relied on local initiative.

Some statutes delegated insufficient authority for enforcement of the mandate and for leadership and direction by the State Department of Education.

There existed a *severe* shortage of professional personnel competent to diagnose, direct, experiment, evaluate, and program for exceptional children. This observation indicated that institutions of higher learning had insufficient financial support by State and Federal Legislation to train such personnel.

Conflicts for control and lack of specific responsibility were serious shortcomings which existed as a consequence of gaps and overlaps in legislation and regulation. These conflicts and intervals occurred among state and local agencies and within the educational establishment.

One of the *most serious gaps uncovered* in the study was the complete absence of legislation to provide for the education of gifted and talented pupils, those who are intellectually unchallenged by curriculum and strategy and those who have outstanding talents in the creative arts (music, visual and performing arts).

The study found the *limitation of financial support* to be a major block to adequate provisions for exceptional children. Furthermore, the study found that while none of the needs were fully met, some were much more adequately served than others. It was found that the pattern of differences in classification for state funding complicated procedures for claiming state aid.

Inadequate and inequitable funding encouraged the employment of less than competent personnel, improper grouping, disproportionate pupil-teacher ratios and inadequate screening and selection processes and evaluative services. The study was aimed at revision of statutes and concomitant regulatory action to preserve the good work which was being done while advancing the cause of equality of opportunity through provisions for individualized instruction.

The principle of equality of educational opportunities based on the intensive worth and unique nature of the human individual dictated that special education would be provided for all exceptionalities. The study interpreted exceptionalities to be encountered over the entire range of the school population and included those who suffered physical, mental and emotional handicaps, those who became bored because of their speed of perception, *those who had special gifts for traditional disciplines and for creative arts and even those who had physical skills of notable extent.*

This study pointed to an all encompassing piece of legislation for all exceptional children. The Chubbuck Report recommended that all exceptional children be serviced under an umbrella type of state legislation. The challenge was a large one for the State Board and the legislature, but it was met in a cooperative and dedicated effort.

The State Board of Education approved the Chubbuck Report in the fall of 1966 and the Legislative Commission began work almost immediately to translate the generalizations of the study into a bill to be presented to the legislature in the next few months. Members of the Legislative Commission and their professional staff members worked very closely with the professional personnel of the State Department of Education while they were doing the translation of the report into a bill for the legislature. Many informal meetings were held to hammer out a quality product to service the needs of all of Connecticut's exceptional children. The main objective of the bill was to include all exceptional pupils under an umbrella bill and allow excess cost reimbursement to each exceptionality. It was to become known as a "special education umbrella bill" which *mandated* school districts to provide programs and services to its mentally retarded, physically handicapped, socially and emotionally maladjusted, neurologically impaired and those suffering from an identifiable learning disability, and make it *permissive* for school districts to provide special education to pupils with extraordinary learning ability and/or outstanding talent in the creative arts.

The bill which eventually was enacted into statute, with a minimal number of changes as passed by the state legislature, was an outstanding effort and example of cooperation and communication among many groups including the state legislature and the state education agency which had to implement the statute in each of the state's 169 school districts. The bill, as submitted and eventually passed, allowed the state education agency wide latitude in implementing the legislation at the local level. Few, if any, definitions appear in the statute. The flexibility allowed the state agency to define various types of exceptional children. Specific wording *mandated* the State Board to provide for the development and supervision of the educational programs for these pupils; it provided the State Board with the opportunity to regulate curriculum, conditions of instruction, physical facilities and equipment, class size, admission of pupils, and the requirements respecting necessary special services and instruction. However, the statute mandated that the State Board designate by administration regulations the procedures for identifying all categories of exceptional children. It also mandated that local school districts provide these programs for exceptional children and said that the State would *reimburse two-thirds of the excess cost of the program.* The various components of the programs eligible for reimbursement would include:

1. *Professional Personnel* – all instructional personnel under contract to the local school district who spend more than one-half of their time with special programs and/or services to exceptional children. This category includes the provision for the reimbursement of all ancillary personnel who spend more than one-half of their time providing ancillary services to exceptional children (psychologists, counselors, clerical assistance and para-professional personnel).
2. *Equipment and Materials* – the statute provides for reimbursement of such items that are directly related to the special education program.
3. *Transportation* – the districts are reimbursed for any transportation needed *above and beyond* that normally provided under the general transportation policy of the school district.
4. *Special Consultative Services* – this category covers the need for personnel who are not under contract to the school district. It allows the employment of non-certified personnel to assist in the identification of, the programming for, and the instruction of exceptional children (artists, musicians, dancers, planning consultants, etc.). *Example:* This allows a district to provide in-service training in all exceptionalities with the cost of such becoming a reimbursable item under the statute.
5. *Rental of Facilities* – the statute allows rental of space to provide instruction and or services to exceptional children, such as portable classrooms, or available space in the city or town which meet the various building codes for school buildings.

The Connecticut statute is predicated on programming rather than numbers of children. A number of states allow special funds based on a per pupil basis. The Connecticut

statute allows the district to design a program for a group of exceptional children and youth and predicates the approval on the quality of the various components of the program rather than on a per pupil basis. The local school district submits a prior approval application for a program in the local school district and once the program is approved by the Bureau of Pupil Personnel and Special Educational Services, the district is eligible for two-thirds excess cost reimbursement of their program at the close of the fiscal year.

STATE LEGISLATIVE COMPONENT FOR THE GIFTED AND TALENTED

A. *General Aspects*

The legislative component in Connecticut is part of the total exceptionality statute. There are two basic differences in the gifted and talented component: 1) it is permissive and 2) it must be done "as part of the public school program."

This component represents an essential part of the state agency's effort to extend, expand and improve programs and services to its children and youth with *extraordinary learning ability* and *outstanding talent in the creative arts.* Section 10-76 of the Connecticut General Statutes, Sections a-j is considered to be exemplary for the gifted and talented because of the broadened concept of definitions allowed the state education agency under administrative regulations approved by the State Assembly: "Extraordinary learning ability" is deemed to be the power to learn possessed by the top five per cent of the students in a school district as chosen by the special education planning and placement team on the basis of 1) performance on relevant standardized measuring instruments or 2) demonstrated or potential academic achievement or intellectual creativity.

"Outstanding talent in the creative arts" is deemed to be that talent possessed by the top five percent of the students in a school district who have been chosen by the special education planning and placement team on the basis of demonstrated or potential achievement in music, the visual arts or the performing arts.

The reader should note that a local school district could provide for upwards to ten percent of its school population, *if the broadened concept of each definition is utilized.* The definitions allow school districts to work with both demonstrated abilities and a potential to gain such abilities. The five percent factor is not an automatic or magic figure nor may it be used for one small segment of the definition. The statute does require that all identification criteria must be approved by the state. Identification becomes quite complex in the approval process to prevent loose or unreasonable criteria from being utilized.

The statute is also exemplary because it was the first state statute in the nation to specifically designate special programming for pupils with outstanding talents in the creative arts (music, visual arts, and the performing arts). For example, a student may be identified who is not intellectually gifted, but possesses outstanding ability in sculpture, media, film making, dance, etc.

B. *Funding to Local School Districts*

State statutes, in many places, merely signify intent by inserting wording relative to the gifted and talented in either a general statute or one relating to special education. Connecticut feels that the most consequential aspect of the statute, as far as the gifted and talented are concerned, is the *provision for adequate funding* to local school districts. A large number of well-intentioned school districts that formerly could not afford to make provisions for their gifted and talented now have a vehicle for implementing programs; and it is for this reason that we believe that *state legislation with proper funding* is a necessary component for effective state action in programming for the gifted and talented.

At the present time, a legislative position is being taken by the Department of Education to increase the reimbursement of programs to seventy-five percent, and to make pre-payment to school districts rather than reimbursement payment. The State Advisory Council on Special Education, the State Board of Education and the Connecticut Association for the Gifted have taken steps to change the statute from a permissive nature to one of mandation. Bills relative to such action were submitted during the 1976 session of the State Assembly and were "boxed". It is the intent of both groups to submit mandation to the 1977 General Assembly.

To summarize, the Department of Education presently reimburses school districts two-thirds of the excess cost of programs and/or services to the gifted and talented. This includes the cost of all professional and para-professional personnel, equipment and materials, transportation, special consultative services and rental of space. The program must be submitted for prior approval (see *Policies, Procedures and Guidelines For Gifted and Talented Programs under Section 10-76 of the General Statutes.* Connecticut State Department of Education. September 1976.) by the Bureau of Pupil Personnel and Special Educational Services.

PROFESSIONAL DEVELOPMENT

The professional development component of the gifted and talented programs in Connecticut takes on two basic elements. One is the element of graduate and undergraduate study and the other is the element of in-service education.

A. *Graduate and Undergraduate Training Programs*

Working in cooperation with the state education agency, the state's colleges and universities have responded to the needs of increasing numbers of professional personnel who are interested in taking course work or advanced degree programs to improve their skills in working with the gifted and talented of Connecticut. These course offerings range from the basic courses on the gifted and talented through specific courses on curriculum, differentiated teaching strategies and advanced seminar work.

The University of Connecticut's School of Education through the leadership of Dr. Joseph S. Renzulli has developed a complete advanced degree program (Masters, Sixth year, Doctorate) for professional personnel accepted for training programs in the area of the gifted and talented. Southern Connecticut State College in New Haven has a relatively new undergraduate and graduate program for training professional personnel in this area of special education. This program is under the direction of Dr. Rudolph Pohl. St. Joseph College in West Hartford, along with Central Connecticut State College and the University of Bridgeport and Trinity College offer courses in the education of the gifted and talented. At various times, both Eastern and Western Connecticut State Colleges hold special summer workshops on the gifted and talented.

In the fall of 1966, only *one course* was being offered on the education of the gifted and talented in the institutions of higher learning in Connecticut. Ten years later, we have three graduate level training programs and five

other colleges offering courses in this area of special education.

B. Inservice Training

The second element of professional development is concerned with a comprehensive in-service training thrust to design and develop training processes for professional and para-professional personnel working with the gifted and talented at the school district level. The state education agency, through the Bureau of Pupil Personnel and Special Educational Services, offers a wide variety of in-service professional development opportunities to the school districts.

The in-service components designed by the Department of Education are sequentially developed to offer different levels of instruction to professional personnel in the field either by visual aides or printed materials.

The three dimensions of our in-service training programs include 1) *Areas of the Gifted and Talented* (the various types of gifted and talented children and youth a district may work with); 2) *Level of Entry and Expectancy of Participants* (Orientation, Design and Development of a Program, Implementation and Initiation, Leadership Training); 3) Content-Specific components and/or categories of information (Ex.: Identification, Needs Assessment, Differentiated strategies and Curriculum, etc.) The specific process of our in-service program is fully described in a publication entitled, "Models for Program Development in In-Service Education for the Gifted and Talented." Connecticut State Department of Education, Bureau of Pupil Personnel and Special Educational Services, 1976.

For example, utilizing both state and Federal funds (Title IV, P.L. 93-380) the Bureau has provided the following types of inservice training in the past ten years:

1) 640 Planning, Development and Update sessions in local school districts involving approximately 7,500 professional and lay personnel in the education of the gifted and talented.

2) 10 – Annual Year End Institutes to update personnel from all over the state on the latest information available on educating the gifted and talented. These annual June conferences average between 300 – 350 personnel from on-going programs.

3) 30 Regional Orientation Workshops aimed at the orientation of general educators to make them more familiar with the special educational needs of the gifted and talented. These programs have involved over 6,000 personnel.

4) 425 presentations to PTA's, parent groups, civic and lay organizations covering approximately 5,100 people.

5) 5 Northeast Regional Conferences on the Gifted and Talented involving over 2,500 participants.

6) 1 National Topical Conference on Handicapped Gifted and Talented.

These are just some of the inservice activities carried on by the State Department which are carefully articulated and coordinated with the professional development programs at the various institutions of higher learning.

FULL-TIME CONSULTATIVE SERVICES

The third major component needed by any of the fifty states in order to provide adequate programs and/or services to each state's group of gifted and talented children and youth is full-time consultative services. Connecticut conducted a nationwide search for a full time director of programs for the gifted and talented in 1966. The state education agency has employed its full-time person since late 1966 to provide a wide variety of services and technical assistance to local school districts, professional groups, colleges and universities and other groups and organizations interested in the education of the gifted and talented.

The role of a state director of gifted and talented programs is a multifaceted position. The person employed designs and develops a number of program strategies, such as: assisting school district personnel in designing, developing and implementing programs for the gifted and talented at their level; in-service training, and working closely with colleges and universities to develop graduate level training programs; development of publications and information to be disseminated to all groups interested in the gifted and talented; curriculum development; research, legislation, evaluation and developing models for new approaches to programs.

State Consultants' Long Range Objectives

1. Objectives of the State Program for the Gifted and Talented:
   - A. *Local Education Agencies will:*
     1. Identify all gifted and talented pre-school and school aged children and youth in need of special education instruction and/or services.
     2. Initiate, expand or improve programs, i.e. differentiated instruction, curricula, services, etc. for the gifted and talented.
     3. Plan for and implement the evaluation of all special programs for the gifted and talented.
     4. Develop coordinated and cooperative regional efforts including facilities for the gifted and talented where appropriate and desirable.
     5. Utilize information on successful programs, curricula, and services for the gifted and talented.
     6. Design, develop, implement and/or participate in in-service training programs designed to provide or upgrade skills of personnel involved in or related to the education of the gifted and talented.
   - B. *The State Education Agency will:*
     1. Provide full-time consultative services to local districts, institutions of higher learning and other appropriate target groups to lend professional technical assistance in the design and development of programs to meet the needs of the gifted and talented.
     2. Provide supportive resource materials through regional centers to assist LEA's and other appropriate groups in giving better services to the gifted and talented.
     3. Expand or improve existing special education legislation for the gifted and talented.
     4. Identify and disseminate information on other state, federal and private funding sources for gifted and talented programs.
     5. Expand or improve existing guidelines to be used to implement LEA programs for the gifted and talented as part of a total state plan.
     6. Design, develop and implement a state plan for the gifted and talented.
   - C. *Colleges and Universities will:*
     1. Initiate new training programs or course sequences to train professional personnel in the education of the gifted and talented.
     2. Adjust their current training programs commensurate with the demands for personnel at the LEA level.
     3. Plan for and implement the evaluation of their pro-

fessional development programs for the gifted and talented.

4. Cooperate with the State Department in providing in-service training opportunities throughout the state.

SPECIAL EDUCATION RESOURCE CENTER (SERC)

The Bureau of Pupil Personnel and Special Educational Services operates and maintains a state-wide information resource center for all exceptional children and youth in Hartford, Connecticut. It is located at the Hartford Graduate Center, 275 Windsor Street. This center maintains updated vertical files (15) and ERIC retrieval resources on the gifted and talented. Its library contains all current text books and materials on the gifted, talented and creative child.

The vertical files contain all types of information on programs, curriculum, identification, teaching strategies and materials from throughout Connecticut and the other states throughout the country. The Center serves as the focus of the state-wide delivery system on gifted and talented children and youth.

PUBLICATIONS

A wide variety of materials are developed and disseminated by the state agency to the school districts and any other interested lay and professional personnel. Included are the following:

The Gifted Child in Connecticut: A Survey of Programs, William G. Vassar and Joseph S. Renzulli, 1967. Connecticut State Department of Education (Out of Print) 55 pp.

The Gifted Children in Connecticut: Practical Suggestions for Programming. William G. Vassar and Joseph S. Ranzulli. 1969. Connecticut State Department of Education. (Out of Print). 84 pp.

11 articles (mimeo) from bibliographies to specific strategies for school administrators.

4 slide presentations:

a. *One State's Commitment to Total Talent* (80 slides), Connecticut's Story of the Gifted.

b. *Teaching Strategies for Teachers of the Gifted and Talented* (40 slides).

c. *Talent Continuums for a Broadening Concept of Giftedness* (80 slides).

d. *Designing, Developing and Implementing Programs for the Gifted and Talented* (105 slides).

IMPORTANT! THESE SLIDE PRESENTATIONS ARE LIMITED TO USE WITHIN CONNECTICUT, WITH SPEAKERS PROVIDED BY THE DEPARTMENT OF EDUCATION.

DESCRIPTIONS OF SOME PROGRAM APPROACHES IN CONNECTICUT

Samples of Substance

The following is a small sampling of some of the different approaches to gifted and talented programming conducted in Connecticut. It is our intent to exhibit the diversity *of program approaches utilized by the local school districts throughout the state.*

A more specific listing of Connecticut's program for the gifted and talented, with short descriptions and contact persons, may be obtained by writing to: Office of the Gifted and Talented, Bureau of Pupil Personnel and Special Educational Services, Connecticut State Department of Education, Box 2219, Hartford, Connecticut 06115.

DARIEN PUBLIC SCHOOLS
Darien, Connecticut

A semi-separation program for grades one through six which meets once a week in each of the six elementary schools for one and one half hours per week. Class size varies from six to twelve children. Meetings are held in areas available at the time.

The Darien program is an interest-based program fostering creative expression for the Terman-type child. Three areas of development are stressed:

1. Effective and imaginative communication based on the child's interest using media, art and language arts.
2. Understanding factors which can limit man's intellect by investigation into heredity, emotions, perspective, rational vs. irrational thinking, etc.
3. Development of a healthy self-concept using self-reflective activities and expressing learning through original art and media creations.

Independent research with exposure to reference resource materials is stressed as well as class and personal evaluation of work and of self.

Selection of students is based on a minimum IQ of 138, Achievement Test results in the 98, 99 percentile range, scores achieved on the Scale for Rating Behavioral Characteristics of Superior Students developed by Joseph S. Renzulli/Robert K. Hartman, and teacher-principal recommendations.

Visits to the Darien program are welcomed and any materials used are available upon request.

FARMINGTON PUBLIC SCHOOLS
Farmington, Connecticut

Research Report on the Counseling Project for Gifted Secondary Students

Background. The theoretical basis for the Farmington Program for Gifted and Talented has come from the self-actualization theory of the growth psychologists such as Maslow, Combs, and Carl Rodgers.

Self-actualization is an individual's need to fulfill his human potential - to become what he has the potential to become - to fulfill his unique prepotencies.

There has been consistent reference to five variables related to self-actualization in the literature.

1. SELF-ACTUALIZING PEOPLE HAVE A STRONG, POSITIVE SELF-CONCEPT.

They have learned through successful growth experiences that they are capable, liked, worthwhile humans. They have bounced their images off of others and their personal radar screens tell them they are good and worthy persons.

2. SELF-ACTUALIZING PEOPLE ARE CREATIVE. Their minds have been trained to find unique solutions to problems - whether these problems are interpersonal or concrete. They can cope with change.

3. SELF-ACTUALIZING PEOPLE HAVE AN INTEGRATED VALUE SYSTEM.

This value system is based upon human values - the worth of others. Their lives are lived in keeping with their values. They have a strong sense of right and wrong, yet the value system is open and new concepts can be tested and, if worthy, integrated.

4. SELF-ACTUALIZING PEOPLE ARE RECEPTIVE TO NEW EXPERIENCES.

They are open rather then close-minded. They are willing to take reasonable risks.

5. SELF-ACTUALIZING PEOPLE ARE GROWTH ORIENTED.

They are conscious of the discrepancy between what they are and what they can be and are motivated toward closing those gaps.

Guidance counselors in the secondary schools are well suited, through their training, to take a central role in helping students toward self-actualization. They have a background in psychology and child development and group counseling techniques.

The Farmington Program for Gifted and Talented is based upon the proposition that a planned group counseling program with specific objectives and activities can help students to become self-actualized by:

1) improving their self-concept.
2) improving their creative abilities.
3) assisting them in developing an integrated value system.
4) developing a growth orientation through raising their vocational aspirations.
5) assisting them to become more open-minded and receptive to new experiences.

HAMDEN-NEW HAVEN COOPERATIVE EDUCATION CENTER
Independent Study Program

History

The Independent Study program for the Talented and Gifted and potentially Talented and Gifted originated in 1967 as a design for high school education. It uses the student's interests as a springboard for exploration of a subject. After four years of refinement of this model, the program was introduced into the four separate area high schools where it currently flourishes.

Program Objectives

The Program seeks to focus interests, goals and premises, guide the student in critical analysis, extrapolation and synthesis of findings, foster creativity and originality and help the student to recognize that failures, frustrations, setbacks and successes are a part of the learning process.

The Program strives to develop humility and open-mindedness to learning by instilling in the students the understanding that one question leads to more, inventiveness in problem solving, resourcefulness, an ability for self evaluation, and an appreciation of the emotional involvement in the learning process.

Selection of Students

Students volunteer for the Program and participate in two interviews, one with the coordinator and one with the teacher-advisor. The interviews assess the depth and diversity of the student's interests, the particular interests appropriate for pursuit in the Program, the student's ability to work on these interests independently with guidance and resource help, and the intellectual or creative potential of the student.

In addition to the interviews, the judgment of guidance counselors and teachers weigh heavily, especially in regard to students with potential. Standardized tests and academic records provide final reference, especially for students with demonstrated talent.

Method of Instruction

The Program is based on conference appointments. With the exception of basic math and science courses, teacher-advisors meet with their students once or twice a week to discuss their work. More contact hours with teacher-advisors are often necessary in science and math. Without a classroom structure, there is no classroom curriculum. The advisor is responsible for guiding students in the selection of resources according to the students' interests and needs and for encouraging the students' resourcefulness. Subject-advisors are available in all major disciplines.

NEW HAVEN, CONNECTICUT
Educational Center for the Arts

The Educational Center for the Arts is a new regional public school program for high school students who have outstanding talent in the arts. Daily 120 students attend the Center from city and suburban high schools in the New Haven area and work together with a staff of producing and performing artists/teachers in a stimulating total arts environment.

Semi-separation Concept

After several years of extensive planning with representatives from each school district in the New Haven area, the Greater New Haven Arts Council, and consultants from the State Department of Education, it was decided to organize the instructional program as a semi-separation experience for gifted and talented high school students in the arts.

Under this concept, a student schedules approximately one half of his high school learning program at the Center in special arts instruction and the other half in courses at the local high school. The student receives full credit from the local high school for learning at both places. To implement this concept, school districts usually need to make some modifications in the regular high school course requirements for students who qualify to attend the Center. In addition, a student frequently must make new kinds of choices and decisions in order to schedule the courses that are most wanted and needed at the local high school along with the Center's program.

Eight Program Areas

The Center has eight major program areas. These include instructional experiences for students with undeveloped talent in dance, music, theatre, and the visual arts. Different instructional experiences are provided students with highly developed talent in the same fields. The visual arts area is defined to include painting, drawing, sculpture, design, as well as photography, video, and 8mm. film.

STAMFORD PUBLIC SCHOOLS
Stamford, Connecticut

In the fall of 1972 Stamford initiated a program called Project Explore for gifted fifth and sixth grade students. Two clusters were established at that time, and in 1973 an added third cluster implemented the program city-wide at those grade levels.

Children who are intellectually gifted, creatively gifted, or who are culturally different with potential are candidates for selection. They attend Project Explore for two full days each week, and remain in their regular classrooms the other three days.

Nuffield Mathematical Project materials (John Wiley & Sons, Inc., New York) provide the basis for mathematical exploration, with a wide variety of mathematical tools, equipment, tasks and activities available to the child with special interest in this area.

The science curriculum is built around three units of the Rand McNally Science Curriculum Improvement Study (SCIS); Ecosystems, Energy Sources, and Models: Electric and Magnetic Interaction. These units are rotated among the three clusters and are not used in any other science program in the Stamford schools. Provisions are also made for the child with exceptional interest or ability in science to do independent experimentation and research.

Great emphasis is placed on providing experiences and activities which encourage divergent productive thinking, open mindedness, value clarification, and a greater role in decision making, and at least a part of each day is devoted to such activities. Some examples of the materials used for these purposes are: Renzulli, Joseph S., *New Directions in Creativity*. New York: Harper and Row, Publishers, Inc., 1973. Parnes, Sidney J.., *Creative Behavior Guidebook*. New York: Charles Scribner's Sons, 1967. Davis, Gary, *Imagination Express:* Saturday Subway Ride. Buffalo, New York: Dok Publishing Co. Inc., 1973.

The goal to widen occupational horizons is largely met by actually involving the class in a business venture, or simulating such an experience. In addition, outside speakers are invited to share their job experiences with the children.

Special projects selected by the class may lead to work in content areas such as social studies, literature, music and the social sciences, but there is no prescribed curriculum in these areas.

Children in the program are encouraged to be responsible for planning their own activities and learning experiences, so blocks of time are set aside during which they may choose from among the many activities and materials available to them.

The abilities vary greatly within the groups because of the three types of children who make up the population. It is necessary, therefore, to provide both a differentiated as well as an enrichment program to meet their many needs.

TALCOTT MOUNTAIN SCIENCE CENTER FOR STUDENT INVOLVEMENT, INC.
Avon, Connecticut

Talcott Mountain programs are almost entirely independent study programs, for students from intermediate grades through senior high school, wherein students choose, plan and carry out projects of their own choosing. Staff acts as a catalyst of materials, ideas, and procedures. The result is that the "curriculum" does not exist in the traditional sense. It constantly changes as student and staff outlooks and enthusiasms change.

The science offerings are in the subject disciplines of astronomy, meteorology, geology, seismology, ecology, chrono biology, radio-electronics, photography, and computer sciences. Recently, gifted students have written computer programs modeling continental drift and predicting satellite positions, have collected and identified air pollutants, have photographed Comet Kohoutek and asteroids, have measured and isolated their own body rhythms, and have used infra-red aerial photography to determine vegetation forms.

These projects probably give the best idea of the curriculum, such as it is.

The program is available upon application to gifted students from any community in Connecticut based upon superior scores on standard I. Q. tests and school recommendations and payment of tuition that is reimbursable to the community.

Programs are in operation for gifted pupils on Saturdays except during the summer.

CONNECTICUT PROGRAM FOR HANDICAPPED/ TALENTED CHILDREN

In March of 1975, a proposal was prepared by ACES, an educational service agency in New Haven, Conn., for submission to the Connecticut State Department of Education to initiate a Title VIB, EHA, project to identify and develop programs for handicapped/talented children. This project sought to combine the resources of the two largest educational agencies in Connecticut: the Area Cooperative Educational Services (ACES) and the Capitol Region Education Council (CREC). These two agencies operate numerous special education programs which serve approximately 500 students with a variety of disabilities including emotionally disturbed, physically handicapped, learning disabled, autistic, mentally retarded, hearing impaired and multiple handicaps.

The object of the first phase of the project was to devise an assessment procedure for documenting developed or potential talent in children who have handicaps. The second phase of the project will focus on program services for handicapped children with high creative potential.

Initially, identification of children was through teacher referral and administration of selected activities from the Torrance Tests of Creative Thinking in a specially adapted form devised by project personnel. Both of these identification methods are used as supplementary screening devices.

While there are numerous traditional methods for identifying intellectual ability, and several for assessing talent in the arts, no satisfactory technique exists for identifying exceptional undeveloped talent in low-functioning children. In the search for a new approach, the project asked the professional artists affiliated with the Educational Center for the Arts in New Haven to develop such an instrument. The key component of the present identification system - and the most significant original contribution which Project SEARCH has made to the field of talent assessment - is the use of artistic judgment in a variety of carefully structured activities. Teams of practicing professional artists have developed and successfully implemented multi-arts experiences which provide flexible and accurate measurement for the various special populations.

It has been a continuing challenge for the artists to devise problems and activities to which even very severely handicapped children can respond. To assist in this task, teachers and consultants have provided background information and training in the nature and parameters of specific disabilities. During this period of time, artists did preliminary work with small numbers of children while constantly refining their assessment techniques. As most of the handicapped children have had only limited exposure to these art forms, we do not expect to find fully developed talent; rather, we are looking for the dimensions of creativity which underlie a variety of human activities.

It soon became apparent that while creative thinking processes may manifest themselves in a variety of fields, the project staff could produce the most effective results by concentrating its efforts in the areas of Visual Arts, Music, and Theatre-Movement. Some of the activities which have been developed for this identification process are described briefly below.

The Visual Arts activities encompass three problem-solving areas or skills: design, color-relationships, and narrative composition.

The design segment uses various multi-colored cubes in a tray to assess the child's ability to create patterns, shapes, and figures with the cubes. Color-relationship skills are measured by having the child create designs and combinations using various modular shaped pieces of colored plexi-glass on a light table. Cut-outs of semi-abstract and realistic objects, with a suitable backdrop, are used to help the child develop a narrative or tell a story in a situation where effective speech is limited.

The musicians have the children explore the sound making properties of common objects in their classroom environment. Children are then asked to combine these sounds for auditory prospects and rhythm and to develop compositions which are then judged for originality and complexity.

The Theatre-Movement specialists have devised activities to measure the child's sensory awareness and emotions through gesture, facially, in role playing, dramatics, and creative movement. Children who are capable are asked to use different parts of their bodies to express a wide range of emotions, interpretive responses, and behavioral relationships. Simple objects such as scarves, elasticized fabrics, and hoops, are used to determine the child's ability to improvise and to assess originality in the use of these body extensions.

A creative movement evaluation, based on Rudolf Laban's movement themes, is used to identify body awareness, action and shape variation, movement pattern variation, and awareness of weight, time and tension.

The use of these multi-arts activities which have been designed to elicit rich creative responses from the children, coupled with on-the-spot professional judgments, have proved to be an extremely strong evaluation technique. The project coordinator is presently devising guidelines for other program developers who wish to assess the creative potential of children in these three talent areas. In addition, the project is publishing a document summarizing the rationale and procedures for assessing cognitive giftedness in six areas of disability.

What has emerged very clearly from our work thus far is the remarkable potential of a number of these children. While the abilities may be masked or submerged by the handicapping condition, full assessment of all exceptional children must include a rigorous search for exceptional strengths as well as deficits. In some cases identification and training during ensuing years of the project may provide a viable career choice. For the majority of our students it is hoped that the program will provide an opportunity for fulfilling growth and self-realization.

For further information please contact:
Alan J. White, Coordinator
Project SEARCH
Educational Center for the Arts
55 Audubon Street
New Haven, Connecticut 06511
April 1976

POLICIES, PROCEDURES AND GUIDELINES FOR GIFTED AND TALENTED PROGRAMS

I. OVERVIEW

The recommendations on the following pages are concerned with programs for those children who have extraordinary learning ability and/or outstanding talent in the creative arts, and who require qualitatively different instructional programs and services. Section 10-76 allows reimbursement for such programs when provided as *part of the public school program* and *prior approved* by the secretary of the State Board of Education.

RESPONSIBILITY OF THE PLANNING AND PLACEMENT TEAM

Many pupils can succeed in the regular school program with some adaptations in the curricular design while others require programs or services beyond the level of those ordinarily provided in the regular school program, but which may be provided through special education as part of the public school program. The determination as to which plan may be effective for these children should be reached by the combined thinking of the special education planning and placement team. In Connecticut the ultimate responsibility for the school placement of any child lies with the superintendent of schools of the school district in which the child attends school. While this responsibility is with the superintendent of schools, his decision should represent the result of inter-professional collaboration on the part of his staff and, if necessary, other consultation of an appropriate nature.

ARTICULATION WITH ADMINISTRATIVE GUIDELINES

These policies and procedures should be used in conjunction with the *General Guidelines for Special Education Programs*, published by the Connecticut State Department of Education. 1976-77.

II. SUMMARY OF LEGAL PROVISIONS

Section 10-76(a-j) of the Connecticut General Statutes makes it permissive for local and regional school districts to provide reimbursable special instructional and ancillary services for pupils with extraordinary learning ability and/or outstanding talent in the creative arts. A local or regional board of education may do this individually or in cooperation with other school districts.

PRIOR APPROVAL PLAN

To be reimbursable, plans for providing such special education must be approved in advance by the State Department of Education. Reimbursement based on an excess cost concept is explained in Section VII of the 1975-76 *General Guidelines for Special Education Programs.*

III. DEFINITIONS OF TERMS

"Extraordinary learning ability" is deemed to be the power to learn possessed by the top five per cent of the students in a school district as chosen by the special education planning and placement team on the basis of (1) performance on relevant standardized measuring instruments or (2) demonstrated or potential academic achievement or intellectual creativity.

"Outstanding talent in the creative arts" is deemed to be that talent possessed by the top five percent of the students in a school district who have been chosen by the special education planning and placement team on the basis of demonstrated or potential achievement in music, the visual arts or the performing arts.

It should be noted that a local school district could provide for upward to ten percent of its school population, if the broadened concept of giftedness is utilized.

For example, extraordinary learning ability allows for 5% of the population involved (K-4, 5-6-7, etc.). However, if the district elects to work with only one segment of the population i.e. high IQ, high achieving pupils, it is suggested that a single target group such as this be limited to 1-3%. This would allow the district to include other target groups (high creative producers, potential, underachievers) to complete the five percent factor.

The five percent factor is not an automatic or magic figure. The school district must assure the Department that these children have been identified through *multiple criteria* and that the five percent factor is not limited to one small segment of giftedness. The same concept is to be applied when utilizing the definitions relative to "outstanding talent in the creative arts."

Screening and identification processes become quite complex when one is developing such criteria in the prior approval process. Each target group of pupils being identified must be processed by multiple criteria which is reasonable and prevents loose or unreasonable criteria from being utilized.

IV. SCREENING AND IDENTIFICATION PROCEDURES

A. *Responsibility for Formulating Screening and Identification Process*

The responsibility for the screening and identification of eligible children and youth rests with the superintendent of schools or a professional staff member of the school district to whom he may delegate this responsibility. This professional person responsible for the screening and identification process will assume the duties of designing a planning and placement team for the gifted and talented as required by Section 10-76.

B. *Screening and Identification Criteria*

Screening and identification criteria should be based on a study of all available evidence as to the pupil's ability and/or potential by personnel qualified to administer and interpret:

1. appropriate standardized tests
2. judge demonstrated ability, potential, intellectual creativity and leadership
3. recognize outstanding talent in the creative arts

C. *Approval of Identification Criteria*

Section 10-76 of the General Statutes requires that the screening and identification criteria for those who are gifted and talented must be approved by the State Department of Education.

D. *Items for Consideration in Screening and Identification Criteria*

1. *Extraordinary Learning Ability*
   a. Very superior scores on appropriate standardized tests. Criteria for "very superior" might be the upper two or three percent of an appropriate criterion group or scores which are at least two standard deviations above the local norms. When a school district falls below the national norms, then appropriate measures to measure potential should be applied.
   b. Judgments of teachers, pupil personnel specialists, administrators and supervisors who are familiar with the pupil's demonstrated and potential ability.
   c. Utilization of a multi-criteria approach is necessary. A number of objective and subjective items should be used to identify any target group. These may include appropriate check lists, rating scales, etc.
   d. Intense interest and involvement in a specific intellectual area.
2. Additional items of evidence used in the creative arts category should include:
   a. Evidence of advanced skills, imaginative insight, intense interest and involvement.
   b. Judgments of outstanding talent based on appraisals of specialized teachers, pupil personnel specialists, experts in the field and/or others who are qualified to evaluate the pupil's demonstrated and potential talent.

   The procedures have been designed to avoid arbitrary cut-off points or limitations. The identification process should identify a small percentage of pupils with extraordinary ability and outstanding talent whose needs are such that they cannot be met in the regular school program.

V. MINIMUM STANDARDS FOR PRIOR APPROVED PROGRAMS

The designing and developing of programs for pupils in these categories should include the following key components:

A. A *written plan* for the total program *must be submitted* to the State Department of Education for prior approval and should include the following steps:
   1. *Need for Program* – the extent to which the program is needed by children at specific grade levels and in various target groups and cannot be provided within the general curriculum and regular classroom offerings.
   2. *Philosophy of Program* – the selection of students, staff, the development of differentiated curriculum and instruction will be dictated by philosophy of the program. Developing a program without articulating purpose with practice is like playing first base without understanding why.
   3. *Goal(s)* – Program – Long Range
   4. *Objectives*
      a. Pupil
      b. Teacher
      c. Environmental
   5. *Target Group(s) of Pupils to be Served* – which group(s) of gifted and talented pupils have the greatest need for a program, grade levels included, and number of pupils to be involved in the program.
   6. *Screening and Identification Procedures* – each target group selected must be screened and identified. The procedures for screening and identification must be sufficiently comprehensive to screen and identify each target group of children and youth included in A-5 above.

      Such procedures *must be accomplished by use of multiple criteria,* such as intelligence tests, achievement and aptitude tests, creativity tests, peer nominations, teacher check lists and rating scales, cultural norms or other predictive measures.
   7. *Administrative Design(s)* – there are various designs for bringing pupils together or providing space or facilities for the instructional aspects of the program. Such designs may embrace regional centers, resource centers in the school district or within a school, resource rooms, itinerant teacher approaches, community mentors, seminars, etc.
   8. *Differentiated Instruction* (program and/or services), the process which is adaptable to varying levels of talent:
      a. *Differentiated Curriculum* – one that involves experiences and activities which are *qualitatively different* from those provided in the regular classroom, and involve a high level of cognitive and affective concepts and processes beyond those normally provided in the regular classroom.
      b. *Differentiated Teaching Strategies* – teaching strategies which will accommodate the unique learning styles of the target groups being programmed for. For example, utilizing the higher mental processes of analysis, synthesis and evaluative thinking in working with the target group of high achieving, highly motivated children and youth.
   9. *Amount of Time spent by Pupils in Program* – pupils should be involved in these differentiated programs for an appropriate and sufficient amount of time to assure that the "qualitatively different" special education activities will have a significant effect on reaching the objectives set for them.
   10. *Articulation and Coordination* – the special program should include evidence that it is being developed in relationship to the total school program. Careful planning should be undertaken to articulating and coordinating the special program with the general education program.
   11. *Professional Staff Qualifications* – careful attention should be given to the selection of both the instructional and ancillary staff who will work with the pupils. No special certifications have been established. Teachers should hold a certificate appropriate for the age level of the program and should have professional and personal qualfications judged necessary for work with these children and youth.

       The teacher should be an individual who has a desire to do this special work, and has demonstrated this interest by showing understanding of children as well as by taking graduate courses which are designed to increase this understanding and to develop the competence required to help these children and youth.

12. *Special Education Consultative Services* – there may be a need for special education consultant services provided by personnel other than employees of the school district. Personnel contracted with for these services need not be certified since their services are being utilized in a non-instructional category or under the supervision of certified personnel. For example, the school district may contract with musicians and artists to evaluate outstanding talent in the creative arts; to advise and assist in planning appropriate special education programs for these pupils; to assist in special instruction of pupils under the supervision of certified personnel; and to engage in other activities which assist teachers to work more effectively with eligible pupils.
13. *Evaluation* – both process and product should be taken into consideration. The program and pupil program should be evaluated in terms of the qualitatively different objectives designed for the program and the children and youth involved. This will require the use of both objective and subjective processes that take into account the variety of important program dimensions.

VI. PROGRAM APPROVAL

Local school districts seeking reimbursement from the State Board of Education under Section 10-76 of the Connecticut General Statutes *must submit* an application for prior approval before the program becomes operational. The prior approval application must be in narrative form and must include the following

A. *Cover Page*

The cover page should be a reasonable fascimile of the following form:

Application for Program Prior Approval
Gifted and Talented Program
to
Office of Gifted and Talented Programs
Bureau of Pupil Personnel and Special Educational Services
Division of Instructional Services
Connecticut State Department of Education

School District _____

Superintendent of Schools _____

Address _____ Zip _____

Telephone No. _____

Director of Program _____

Address _____ Zip _____

Telephone No. _____

Superintendent of Schools (Signature) _____ Date _____

Grade Levels Involved in Program _____

No. of Children Involved in Program _____

Received in State Department of Education on _____
Date

_____
By

Approved for Operation and Funding on _____
Date

_____
By

Assigned Coding Number _____
(For State Department use only)

B. *Narrative Section* – the narrative section of this application must include amplification of all components listed under the foregoing section. V-A (1-13). Each component should become part of the application and will serve as the school district's existing plan for the gifted and talented.

1. Need for Program
2. Philosophy of Program
3. Goal(s)
4. Objectives
5. Target Group(s) of Children to be Served
   a. Grade levels
   b. No. of Students Served
6. Screening and Identification Procedures
7. Administrative Design(s)
8. Differentiated Instruction
   a. Curriculum
   b. Teaching Strategies
9. Amount of Time Spent by Teachers in Program
10. Articulation and Coordination
11. Professional Staff Qualifications
12. Special Educational Consultative Services
13. Evaluation Procedures

C. *Budget* – the budgeting items should be directly related to items 1-13 above. Section 10-76 allows the following as reimbursable items of two-thirds excess cost:

1. *Personnel*
   a. Any instructional professional spending more than 50% of his or her time in the special program.
   b. Any pupil personnel specialist (counselor, psychologist, etc.) spending more then 33 1/3% of his or her time in the special program.
   c. List and describe with qualifications all professional and clerical personnel, etc. for whom reimbursement is being requested and the amount of time they are to spend with the program. (Please refer to *General Guidelines for Special Education Programs*, Section VII for further clarification).
2. *Instructional Equipment and Materials*

   List and describe costs of special instructional equipment and materials required for conducting the program. This is a category to cover costs of special instructional equipment and materials which are necessary for the special education program and which will be used primarily for those pupils in such a program. Specific instructional materials beyond the level used in the regular program would be allowed. In some cases, rental of equipment may be reimbursable. For example, the purchase of musical instruments is not reimbursable; however, in cases where an instrument is necessary and no other source is available, the rental of a particular instrument may be reimbursable. (Refer to *General Guidelines for Special Education Programs*, Section *VII*, for further clarification).
3. *Special Consultative Services*

   List and describe personnel (other than regular employees of the board of education) with their costs and qualifications. This is a category to cover special services provided by personnel other than employees of the school district. (See Section V-A No. 12 for amplification).
4. *Special Education Tuition*

   Payments made to other school districts, private and public organizations for services to the gifted and talented who remain pupils in your school district (i.e., Talcott Mt. Science Center, Educational Center for the Arts, Creative Arts Community, etc.).
5. *Transportation*

   Only such transportation which is provided "above and beyond" that normally provided for the purposes of general education.
6. *Rental*

   This is allowable only when such rent is necessary because of the special education programs. *Satisfactory evidence must be presented* in this prior approval to show that it is in the best of interest of the gifted and talented children and youth involved.

D. *Applications For Prior Approval*

Such application should be submitted in duplicate *no later than forty-five days* prior to the implementation of the program to:

William G. Vassar, Consultant
Gifted and Talented Programs
Connecticut State Department of Education
Box 2219
Hartford, Connecticut 06115
Telephone (203) 566-3444

THE FEDERAL ROLE IN EDUCATION OF THE GIFTED AND TALENTED

By Jane Case Williams
Deputy Director

OFFICE FOR GIFTED AND TALENTED
U.S. OFFICE OF EDUCATION

In the more than 100 years of its existence, the role played by the U. S. Office of Education in serving the gifted and talented has ranged from nonexistent or peripheral to that of strong advocate and administrator of legislation specific to gifted and talented education. Prior to 1961 there were sporadic publications from USOE, e.g., "Reading for the Gifted", and some research and surveys of program offerings for the gifted in high schools. Between 1961 and 1964 a specialist in the area of "gifted" was employed to develop training programs for the Division of Elementary-Secondary Education; however, in 1964 the Office was reorganized away from emphasis on specialized areas.

A measure of success of this brief attention to gifted education can be noted in the fact that here began the impetus which has succeeded in moving the definition of giftedness away from narrow emphasis on academics and "IQ" toward the broadened approach which is currently accepted for federal programs.

The definition of giftnedness for purposes of federal education programs, established in the Commissioner's Report to Congress in 1971, reads:

Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. *general intellectual ability*
2. *specific academic aptitude*
3. *creative or productive thinking*
4. *leadership ability*
5. *visual and performing arts*
6. *psychomotor ability*

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5 percent of the school population.

Evidence of gifted and talented abilities may be determined by a multiplicity of ways. These procedures should include objective measures and professional evaluation measures which are essential components of identification.

Professionally qualified persons include such individuals as teachers, administrators, school psychologists, counselors, curriculum specialists, artists, musicians, and others with special training who are also qualified to appraise pupils' special competencies.

The Congress of the United States expressed its interest and concern by passing a landmark addition to the Elementary and Secondary Education Amendments of 1969 (Public Law 91-230), section 806, "Provisions related to gifted and talented children." This amendment, unanimously passed in the House and Senate, provided for two specific changes in existing legislation. It explicated congressional intent that the gifted and talented student should benefit from Federal education legislation-notably titles III and V of the Elementary and Secondary Education Act and the teacher fellowship provisions of the Higher Education Act of 1956. Section 806 directed the Commissioner of Education to conduct a study to:

1) Determine the extent to which special educational assistance programs are necessary or useful to meet the needs of gifted and talented children.

2) Show which Federal education assistance programs are being used to meet the needs of gifted and talented children.

3) Evaluate how existing Federal educational assistance programs can be more effectively used to meet these needs.

4) Recommend new programs, if any, needed to meet these needs.

This study represented an area of concern for both the Federal and non-Federal sectors, and offered the U.S. Office of Education (USOE) the opportunity to study an educational problem with nationally significant, long-term implications for society.

The study consisted of five major activities:

1) Review of research, other available literature, and expert knowledge.

2) Analysis of the educational data bases available to USOE and the development of a major data base through the "Survey of Leadership in Education of Gifted and Talented Children and Youth" (Advocate Survey).

3) Public hearings by the Regional Assistant Commissioners of Education in each of the 10 HEW regions to interpret regional needs.

4) Studies of programs in representative States with a longstanding statewide support for education of gifted and talented children.

5) Review and analysis of the system for delivery of Office of Education programs to benefit gifted and talented children.

This study began in August 1970 with the development and acceptance of the plan and concluded in June 1971 with the preparation of the final report, based on the findings and documentation from the five major activities.

This study produced recommendations on special programs and suggested priorities in planning individual programs, estimates of the professional support and teacher training required, and adjustments in legal definitions that would enhance the possibility of State and local fiscal support. The major findings of the study – those with particular relevance to the future planning of a federal role on education of the gifted – are:

– A conservative estimate of the gifted and talented population ranges between 1.5 and 2.5 million children out of a total elementary and secondary school population (1970 estimate) of 51.6 million.

– Existing services to the gifted and talented do not reach large and significant subpopulations (e.g. minorities and disadvantaged) and serve only a very small percentage of the gifted and talented population generally.

– Differentiated education for the gifted and talented is presently perceived as a very low priority at Federal, State, and most local levels of government and educational administration.

– Although 21 States have legislation to provide resources to school districts for services to the gifted and talented, such legislation in many cases merely represents intent.

– Even where there is a legal or administrative basis for provision of services, funding priorities, crisis concerns, and lack of personnel cause programs for the gifted to be miniscule or theoretical.

– There is an enormous individual and social cost when talent among the Nation's children and youth goes undiscovered and undeveloped. *These students cannot ordinarily excel without assistance.*

– Identification of the gifted is hampered not only by costs of appropriate testing – when these methods are known and adopted – but also by apathy and even hostility among teachers, administrators, guidance counselors and psychologists.

– Gifted and talented children are, in fact, deprived and can suffer psychological damage and permanent impairment of their abilities to function well which is equal to or greater than the similar deprivation suffered by any other population with special needs served by the Office of Education.

– Special services for the gifted and talented will also serve other target populations singled out for attention and support. (such as the disadvantaged)

– Services provided to gifted and talented children can and do produce significant and measurable outcomes.

– States and local communities look to the Federal Government for leadership in this area of education, with or without massive funding.

– The Federal role in delivery of services to the gifted and talented is presently all but nonexistent.

These findings provide ample evidence of the need for action by the U.S. Office of Education to eliminate the widespread neglect of gifted and talented children. Federal leadership in this effort to confirm and maintain provisions for the gifted and talented as a national priority, and to encourage the States to include this priority in their own planning was immediately assumed by the U.S. Office of Education.

The Commissioner of Education, Sidney P. Marland, immediately established the Office for Gifted and Talented. The OGT was to be an advocate office within the U.S. Office of Education for purposes of coordinating activities which could be supported with USOE resources and to encourage investment by the private sector and other public, State and local resources. Dr. Marland stated: "During 1971-72, the Federal government, through the U.S. Office of Education, committed itself to a new and extremely important area of concern – the education of the gifted child. . . . It is a significant commitment."

To support this commitment a small staff was assembled and housed within the Bureau of Education for the Handicapped – the part of the U.S. Office of Education administratively most parallel to accepted patterns for provision of services to gifted children, and one highly experienced and successful in the delivery of specialized services to specific target populations. Some USOE program funds were made available for national projects benefitting the gifted and talented, e.g., the Education Professions Development Act supported the National-State Leadership Training Institute for the Gifted and Talented; Title V, ESEA, supported several regional interstate projects; career education for gifted and talented was initiated with an institute supported by BOAE. All of these commitments were enhanced by the cooperation of the Regional Commissioners of Education in assigning in each of the ten DHEW regions, a part time Gifted and Talented Program Officer.

In 1974, full recognition of the federal role in education of the gifted and talented was realized with the passage of the Education Amendments of that year. Section 404 (a part of the Special Projects Act) gives statutory authority to administer the programs and projects authorized by the legislation and to coordinate all programs for gifted and talented children and youth which are administered by the Office of Education. This is the initial legislative authority for a program of categorical federal support for education of the gifted and talented.

The legislation provides for the following:

"grants to State educational agencies and local educational agencies to assist in the planning, development, operation, and improvement of programs and projects designed to meet the special educational needs of gifted and talented children at the preschool and elementary and secondary school levels";

"grants to State education agencies for purposes of establishing and maintaining, directly or through grants to institutions of higher education, a program for training educators of the gifted and talented and their supervisors";

"grants to non-profit agencies or institutions for leadership training, including internships with local, State or Federal agencies and other public or private groups";

"contracts for the establishment and operation of model projects for the identification and education of special target populations of gifted and talented children, including such activities as career education, bilingual education, and programs of education for handicapped children and for educationally disadvantaged children"; and

"dissemination to the public of information pertaining to education of the gifted and talented."

A program of research is also authorized; however, this is to be conducted by the National Institute of Education. The legislation authorizes an annual appropriation for the above purposes of $12.25 million for each year of the three-year life of the Special Projects Act. Regulations and program announcement dates as published in the Federal Register may be obtained upon request for the use of potential applicants.

In implementing programs under this authority, the Office of Education is drawing upon the experience and successful approaches used in meeting the special educational needs of other special target populations, as for example, handicapped children and youth who have received enormously increased and improved services through implementation of the Education of the Handicapped Act.

The program of educational assistance for the gifted and talented will employ a catalytic strategy for stimulation and support primarily of state leadership and excellence of programming at points of impact which are critical in the development of a national delivery system for education of gifted and talented children and youth. This is a logical extension of the existing initiative begun in 1971 and 1972 with the Commissioner's Report to Congress on education of the gifted and talented, and the designation of the Office for Gifted and Talented as an unfunded advocate office within the agency. In the intervening two years, this office, working

with cooperatively secured public and private sector resources, has initiated a program of national awareness, leadership training and development, State planning, research on special problems in identifying and serving gifted disadvantaged, career education, and development and dissemination of information to a national user network.

With the enormous interest in this program and the stringencies imposed by limited resources, strategies for obtaining maximum benefit from approved projects are important. All projects are funded on a competitive basis – that is, there is no formula distribution of funds. Applications are reviewed on a fully competitive basis by qualified readers from the field and the Office of Education. Awards are made on the basis of review criteria which emphasize the planned coordination of already existing resources within a State or locality, multi-institutional cooperation, high quality, activities which achieve a multiplier effect, dissemination and replication of project outcomes, general effectiveness, and cost efficiency.

It is anticipated that supported programs under this authority as well as other federal and non-federal resources will address continuing needs in the major areas of national concern to which the Office for Gifted and Talented has directed resources to date. These include the following:

State Leadership – The primary target group is educational leadership, especially within the State education agencies, where the focus has been on the development of trained teams from each state which have capability to direct a variety of public resources toward improving educational opportunities for gifted and talented youth. The underlying assumptions are supported by the fact that even the earliest data available to the Office of Education shows a high correlation between State agency efforts and services provided to the gifted and talented populations of those states. Funds available under the Education Professions Development Act in 1972, 1973, and 1974, have enabled the training of diverse teams and development of State plans for more than two-thirds of the States and Territories as well as some regional and large city teams, and will have reached all fifty-seven by the end of fiscal year 1975. The program of State and Local Education Agency grants authorized under Section 404 will provide for enactment of these plans and the "unlocking" of State and community resources.

Manpower and Training Needs – The absence of programs for the gifted and talented is accompanied by shortages of personnel experienced or trained in the field. Manpower training studies in education have shown the value of short-term institutes for inservice teacher preparations, technical assistance centers of excellence and catalytic funding to, or contracting with colleges and universities to encourage course offerings. Cooperative training efforts will coordinate State planning with provision of resources at institutions of higher education.

A critical need exists also for a nationally distributed cadre of leaders – people who can assume the role of training other leaders, influencing school districts and State education agencies, and developing high quality curricula for the gifted and talented and for the provision of "internship" leadership development opportunities at State and national administrative levels in governmental and non-governmental organizations.

Information Development and Dissemination – In the development of national public awareness and to respond to the heavy flow of information requests, the development and dissemination of information on educating the gifted and talented child has been a concern of all program efforts coordinated by the Office for Gifted and Talented. Every project has been information product oriented and wide distribution is achieved for the resultant publications. This effort has been facilitated by the existence of the ERIC Clearinghouse on Handicapped and Gifted, supported by the National Institute of Education for purposes of acquiring, indexing and retrieving relevant research and related data.

Through the network of States, Regional Offices of Education, services such as the Leadership Training Institute, and national associations of persons involved in education of the gifted and talented, a mechanism can exist for efficient determination of user requirements and dissemination services.

Research and Exemplary Projects – An early history exists of research on the measurement and development of high potential of individuals through education. In recent years, research in education has tended to emphasize special needs of disadvantaged and other target populations without recognizing the very special needs of the disadvantaged gifted. These are children who, for a variety of reasons such as age, sex, economic and social factors, race, language background, etc., do not receive special recognition of their potential and consequently fail to develop these abilities.

Section 404 permits application of research to the identification and provision of services to such special target populations and dissemination of documentation of successful practices.

Plans for the NIE supported research program, as mandated in this law, are expected to be prepared in cooperation with USOE's Office of the Gifted and Talented.

Career Education – Career education as "the total effort of public education and the community to help all individuals become familiar with the values of a work-oriented society, to integrate those values into their personal value systems, and to implement those values in their lives in such a way that work becomes possible, meaningful, and satisfying to each individual" is particularly significant in consideration of the gifted and talented. These young people are faced with a multiplicity of possible directions for development of life purpose – and require understanding, guidance, and development far beyond that of their peers if they are to realize their potential contribution to self and society.

Projects from local school districts (with state review) as well as projects under the 15% set aside provisions for special target programs will be funded with career education as one priority area.

Private Sector Cooperation – The Office for Gifted and Talented has been successful in working cooperatively with non-public resources to support projects initiated jointly by the Office of Education and private agencies. This is an area in which the Office for Gifted and Talented was given broad authority to enter into cooperative relationships. Some examples of products and activities include: the Exploration Scholarships program (a national competition to identify and place outstanding young people in career exploration opportunities with some of the world's leading scientists); a conference on educational needs of the disadvantaged gifted; support by a foundation directly to the technical assistance program of a state education agency; development of a national gifted student conference and resource directory; mentorships in the arts; and partial support to conference and other activities in which there is cooperative public-private investment.

These activities represent an important and complementary contribution to the national federal education program for the gifted and talented and cooperative private-public sector programs will be encouraged in conjunction with the implementation of programs now legislated.

IN PERSPECTIVE . . .

As a source book for program planning, this manual has concentrated on the basics: providing an overview of those subjects which are key to initial program planning. Subjects not covered by the manual are referred to in the bibliography. Yet, these information and resources are not sufficient without a perspective.

At the time of the Bicentenial celebration, we are reminded of the principles upon which this country was founded. Among them was the belief that "all men are created equal and endowed with certain unalienable rights . . . life, liberty and the pursuit of happiness." This has variously been interpreted to mean that every human being has a right to the optimum development of his potentialities. Yet it is a political reality that this philosophic principle has not been achieved for large numbers of people.

Count among those people many of the gifted and talented. Too often it has been assumed that those with advanced intelligence could achieve "satisfaction and success" by virtue of their intelligence alone. We know this is not the case. There are special needs which go along with special talents.

During the last two decades there has been increasing recognition of these needs. This recognition reflects a changing concept of intelligence and the expanded philosophy for educating the gifted and talented. We no longer view intelligence as fixed or predetermined. We recognize a broader range of talents beyond the literary and mechanical intelligence of old. J.P. Guilford's "Structure of the Intellect Model" presents us with a spectrum of intellectual functions, i.e., fluency, flexibility, imagination and originality. Calvin Taylor talks of applied intelligence such as academic talent, creative and productive talent, evaluative or decision making talent, planning talent, forecasting talent and communication talent.

Further, we are just beginning to unearth the wealth of talents to be found in disadvantaged, culturally different or handicapped individuals. The unique problems inherent in identifying the gifted and talented among culturally different or handicapped populations should be apparant to us all. Standardized tests do not identify the intellectually gifted among a culturally different population. Those who are physically handicapped often cannot respond to questions or tests through speech or writing. Nevertheless gifted and talented individuals abound in these population groups.

To overcome these problems, there have been numerous projects for identifying and developing the talents of the "disadvantaged." From these has grown a renewed interest in and commitment to exploring the best means of assessing gifted and talented among these groups and planning for the development of their unique abilities. Project SEARCH is a prime example. Other research projects are being conducted around the country, all with the expectation that their findings will eventually result in joint state and local funding for handicapped or culturally different gifted programs.

As our concept of giftedness broadens it is increasingly clear that approaches to educating the gifted and talented must go beyond acceleration and enrichment. This is obvious with culturally different or handicapped individuals, but also important for the intellectually gifted or artistically creative. Moving away from standardized programs, we have begun to emphasize each child's individuality: interests, personality, talents, learning style, etc. We recognize that "they learn different things in different ways, not just quicker. Some think better in numbers than in words, and they perceive and understand mathematical relationships more easily than verbal relationships. Still others are unusually skilled in manipulating spatial relationships and objects but are quite incompetent in literature. The ways in which gifted children differ as to learning styles are almost infinite since each person is unique."

This is beginning to result in more open ended programs and methods as well as more flexible administrative designs and more creative teaching. Yet these factors are not to be taken for granted. They must be carefully planned. Once the target population has been identified, (i.e., artistic creativity) educational decision-making should be based on choosing the most effective, affordable means for meeting individual needs.

The conceptual framework doesn't end here, however. This expanded approach to educational planning for the gifted and talented must take into consideration the fact that the early years of a child's life are critical to the establishment of individuality and to the maximum development of potential. In the past little attention has been paid to preschool and primary level education of the gifted and talented. Most programs have begun at grade four plus. Increasingly, however, the work of Elizabeth Starkweather in preschool assessment of creativity and Virginia Erhlich with preschool gifted programs in New York City are being modeled. And further research into identification and programming for this age group is being initiated.

These factors and others such as in-depth teacher training or a conceptual model for curriculum planning i.e., Joseph Renzulli's "Enrichment Triad Model," help bring the current concept of educating the gifted and talented into sharper focus. We become increasingly aware that the process of education does not take place when gifted students are merely given "more," but when the curriculum is "different." Programming must provide experiences that students could not get within the regular classroom. And these experiences must be coordinated around the individual student's talents and needs.

Local school districts are increasingly aware of their responsibility to the gifted and talented. There has been a steady growth in the number of LEA's committing themselves to the education of their gifted and talented. In 1975-76 alone, there was an increase of 16 new programs within the state of Connecticut. This is particularly significant in light of reduced budgets with which school boards have to work. Further, Connecticut through its legislation has made a commitment to the broadened concept of giftedness, and mandation of gifted programs is a goal toward which we work.

Providing an opportunity for the gifted and talented in our population to develop their potential is one of the most exciting challenges in education today. This task is not an easy one, but by establishing a perspective on the subject, following the procedural guidelines and utilizing the many resources available, it can be accomplished. And the rewards will go to all involved. *—M.R.H.*

Quote taken from: Torrance, E. Paul, "Broadening Concepts of Giftedness in the 70's", Prepared for Northeast Regional Conference for the Gifted and Creative, November, 1970, New Haven, Connecticut

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Potential Resources for Information Concerning the Gifted and Talented

Connecticut Association for the Gifted
ACES
800 Dixwell Ave.
New Haven, Conn. 06511
Lynne Niro, President

Connecticut State Department of Education
Bureau of Pupil Personnel and Special Educational Services
P.O. Box 2219
Hartford, Connecticut 06115

Creative Education Foundation, Inc.
State University College at Buffalo
Chase Hall
1300 Elmwood Avenue
Buffalo, New York 14222

ELA Parents Association (Extraordinary Learning Ability)
785 Park Avenue
Bloomfield, Connecticut 06002
Lynn Niro, President

ERIC Clearing House on the Gifted and Talented
The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Explorers' Club
46 East 70th Street
New York, New York 10021

Gifted Child Quarterly
(Available to members of The National Association for Gifted Children)
Route 5
P.O. Box 630 A
Hot Springs, Arkansas 71901

Institute for Behavioral Research in Creativity
1417 South 11th Street East
Salt Lake City, Utah 84105
Calvin Taylor, Director

MENSA and Teen MENSA
50 East 42nd Street
New York, New York 10017

National Association for Gifted Children
8080 Springvalley Drive
Cincinnati, Ohio 45236

National Honor Society
1904 Association Drive
Reston, Virginia 22091

National Merit Scholarship Corporation
99 Grove Street
Evanston, Illinois 60201

National/State Leadership Training Institute on the Gifted and Talented
Civic Center Tower Building
316 West 2nd Street, Suite PH-C
Los Angeles, California 90012
Irving S. Sato, Director

Office for Gifted and Talented Dorothy A. Sisk, Director
United States Office of Education
R.O.B. 3, Rm. 2100
Washington, D.C. 20202

SERC (Special Education Resource Center)
275 Windsor Street
Hartford, Connecticut 06120
Tom B. Gillung, Director

Talents and Gifts
(Available to members of The Association for the Gifted)
1920 Association Drive
Reston, Virginia 22091

The Association for the Gifted
Division of the Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Information is also available from those persons, programs and universities mentioned in the text.